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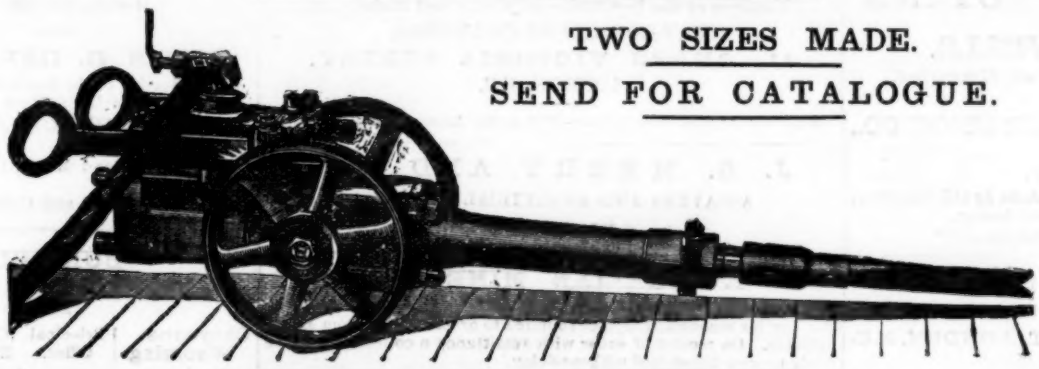

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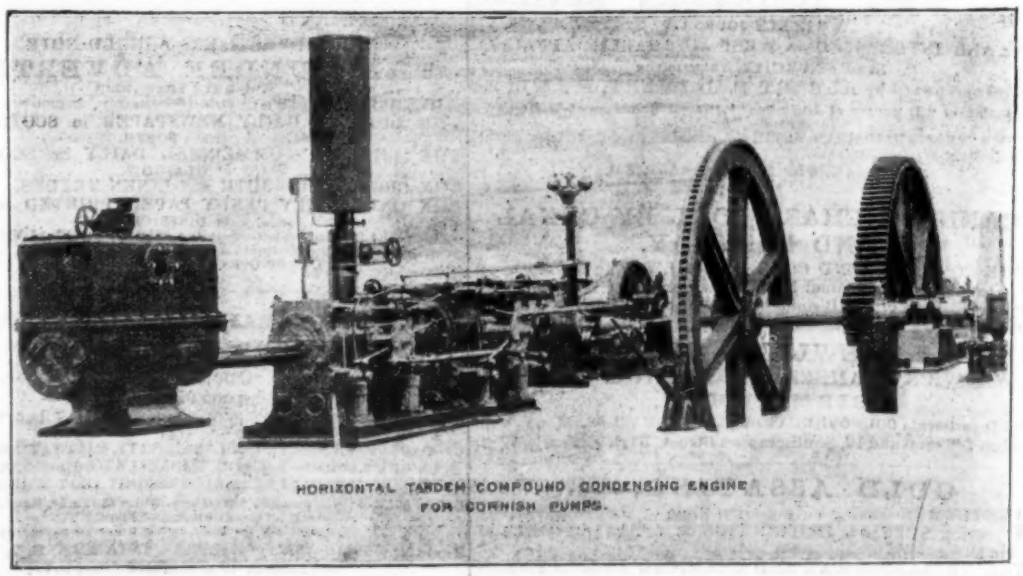

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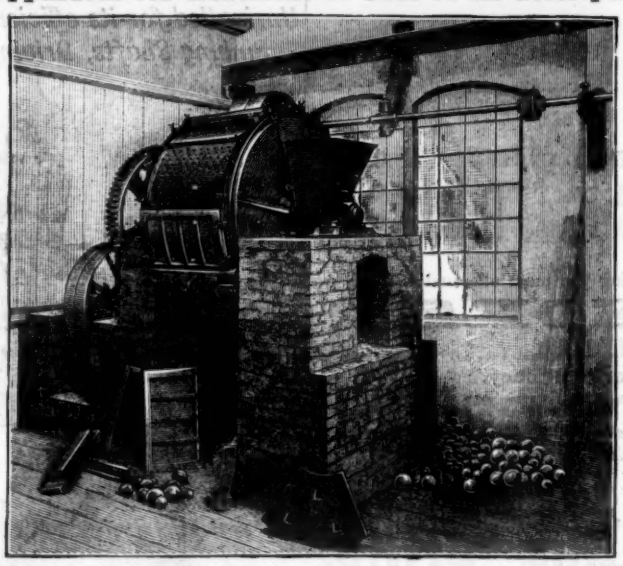

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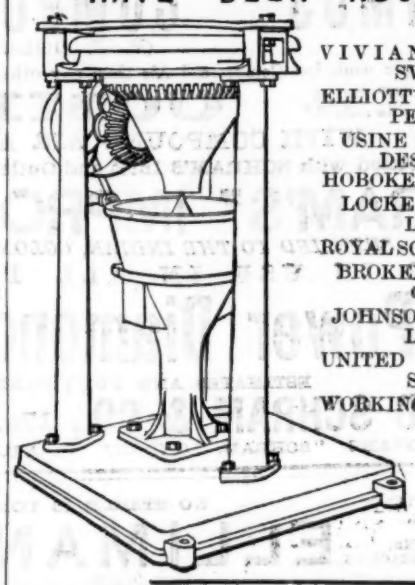

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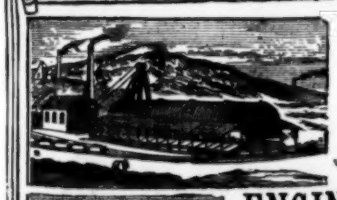

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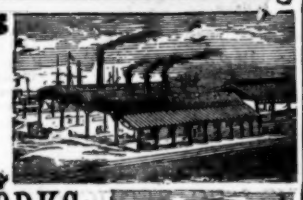

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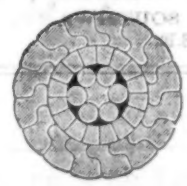

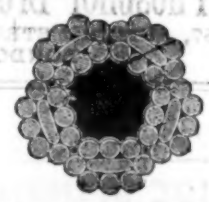

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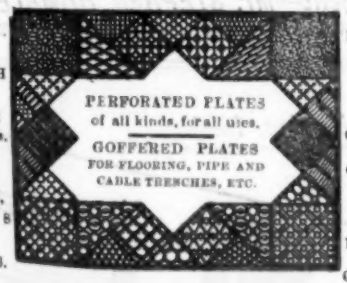

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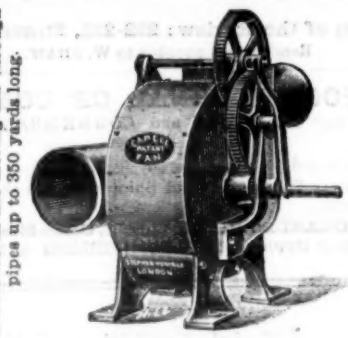

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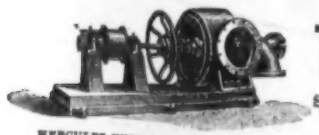

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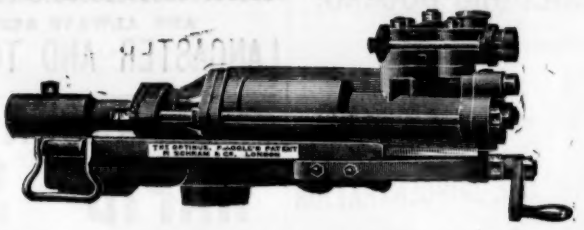

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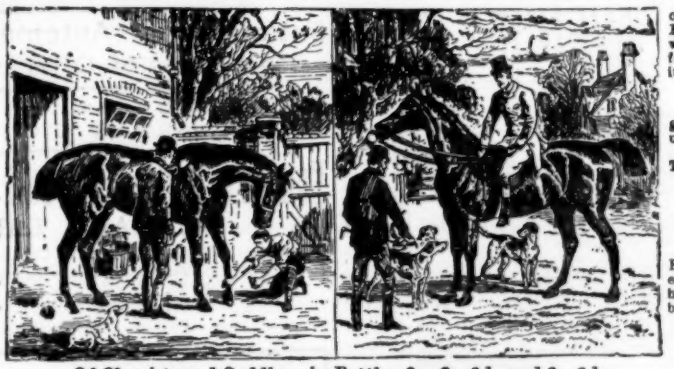

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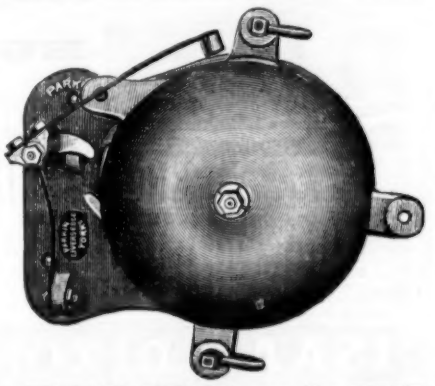

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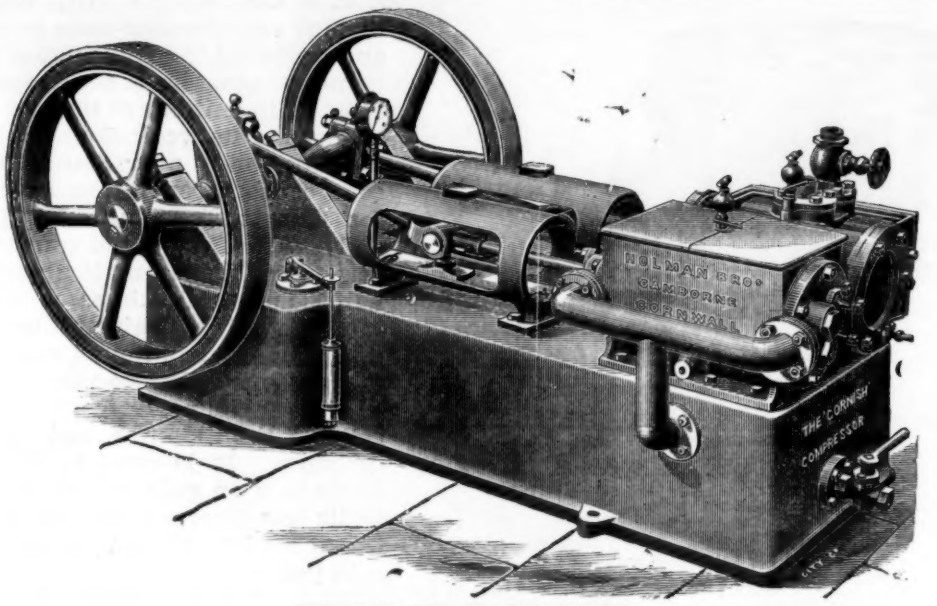

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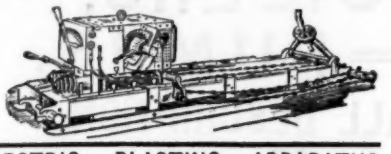

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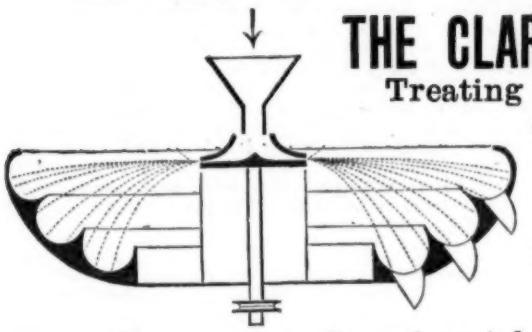

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NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

8990 William Anderson and George Richards and Co. (Limited), Broadheath, near Manchester.—Improvements in machines for planing metal.—May 7.
9004 John Free and Hutcheson, 22, St Enoch Square, Glasgow.—Improvements in the manufacture of acetate of lead.—May 7.
9048 Alfred Julius Boult, 323, High Holborn, London.—Improvements in or relating to valves for steam engines.—May 7.
9060 Joshua Thomas, 17, Southampton Buildings, Chancery Lane, London.—Governor for feed pumps.—May 8.
9076 William Anderson and George Richards and Co. (Limited), Broadheath, near Manchester.—Improvements in tools for boring metals.—May 8.
9093 Alfred Suiter, 32, Newington Butts, Newington, London.—Improvements in pressure guages.—May 8.
9097 Horace Fowler Brown, 323, High Holborn, London.—Improvements in ore roasting furnaces.—May 8.
9109 Louis Henry Lloyd, 46, Lincoln's Inn Fields, London.—Improvements in motors for operating pumps.—May 8.
9118 George Payne, 45, Southampton Buildings, London.—Improvements in miners' safety lamps.—May 8.
9160 Frank Scott, Cornish Street, Sheffield.—Improvement in rock boring machines.—May 9.
9 03 James Watt, 9, Warwick Court, Gray's Inn, London.—Improvements in shears for cutting sheet metal.—May 9.
9210 Edouard Cramer, 433, Strand, London.—Improvements in kilns for burning cement and other minerals.—May 9.
9273 John Mackie, Reading Ironworks, Reading.—Improvements in the construction of wrought iron or steel pulleys, drums and wheels.—May 10.
9305 William Dickinson, 3, St. Nicholas Buildings, Newcastle-on-Tyne.—Improvements in or relating to gas or vapour engines.—May 11.
9308 Richard James Hodges, 25, Grove Lane, Stamford Hill, London.—Improvements in air propellers or ventilating screw fans.
9365 Walter Edward Everitt, 41, Southampton Buildings, Chancery Lane, London.—Improvements in earth boring and drilling machines.—May 11.
94 3 William Harding Scott, Gothic Works, King Street, Norwich.—Improvements in pumps for oil engines or other purposes.—May 12.

SPECIFICATIONS PUBLISHED.

7734, Bonjour, steam, &c., engines, 1893; 7734a, Bonjour, steam, &c., engines, 1893; 10,054, James and others, safety lamps, 1893; 10,310, Hartley and Kerr, gas, &c., engines, 1893; 11,905, Barnes, props, &c., for mines, 1893; 11,166, Knapp, steam, &c., engines; 21,416, Berry, valves, 1893; 5416, Larmuth and Howarth, rock drilling machines, 1894.

The above specifications published may be had of Messrs. Rayner and Company 37, Chancery Lane, London, at 10d. each including postage.

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The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal and Cannel, May 29 (*Todmorden*).—For the supply of coal and cannel for the next one, two, or three years, for the Gas Committee. Conditions and forms of tender may be obtained on application to Mr. George E. Saville, engineer and manager, Gasworks, Todmorden. Sealed tenders, endorsed "Tender for Coal," or "Tender for Cannel," to be sent to the manager.

Wagon Springs, May 30 (*London, E.C.*).—For the supply and delivery of laminated bearing springs for wagons, for the East Indian Railway Company, as per specification and drawing to be seen at the company's offices, Nicholas Lane, E.C. Tenders are to be sent to Mr. A. P. Dunstan, secretary.

Coal, June 1 (*Kildwick*).—For the supply of the whole or a part of 3000 tons of best screened gas coal or nuts, to be delivered free at Kildwick, during 12 months ending June 30, 1895, for the Kildwick Parish Gas Company. The coal to be delivered at such times and in such quantities as the manager may direct. Tenders to be sent in by June 1. Mr. Fred H. Pickles, manager and secretary, Gasworks, Kildwick.

Reservoir, June 2 (*Buckley, N.*).—For the construction of a new reservoir at Pendinas, Bwlchgwyn, near Wrexham, for the Brymbo Water Company. Plans, sections, &c., to be seen at the offices of Messrs. Dennis and Son, engineers, Ruabon, between 10 and 4.

Coal, June 5 (*Staines*).—For the supply and delivery of 6000 tons of Rust Pontop, New Pelton, or other gas coal, for the Staines and Egham District Gas and Coke Company (Limited). The deliveries to commence after November 1, and to continue during period ending September 30 following. Forms of tender, containing further particulars, may be obtained upon application to the secretary.

Bridges, June 5 (*Taunton*).—For supplying and fixing a Stoney's patent pinstock, 9 feet by 18 feet, two steel or wrought-iron bridges, building of walls, and other works in the French Weir Fields, for the Corporation. Plans and specifications to be seen and particulars obtained of Mr. James H. Smith, borough surveyor, Municipal Offices, Castle Green.

Bridge, June 7 (*Aberdeen*).—For the construction of a steel girder bridge, with masonry piers, side arches, and relative works, over the River Dee, at Maryculter, near Aberdeen, in accordance with plans and specifications, which may be seen with Mr. James Barrow, civil engineer, 7, Union Terrace, Aberdeen.

Girders (*Ryde*).—For the supply of a large quantity of lattice girders for the bridges connected with a light railway in Mexico. Drawings and particulars can be obtained from Mr. R. F. Anderson, A.M.I.C.E., The Esplanade, Ryde, I.W., on payment of £2, which will be returned to all except the successful contractor.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

METALLURGIST.—They are both good speculations.

D. C.—The company is about to be reconstructed.

BRIT.—When a favourable opportunity presents itself, we should advise you to dispose of say two-thirds of the shares you now hold; there are many safer and more remunerative investments obtainable.

LAW.—The prospects of the mine are undoubtedly good.

K. K.—They are certainly worth your buying, provided you can purchase them as you say at 5s. per share.

A. R. A.—We are not surprised at the unfavourable return disappointing you. We think, however, that there is no cause for alarm, and that the company is yet likely to achieve a fair amount of success; it is certainly under most able management.

D. M.—We cannot advise the investment; the prospects are not brilliant, and the liability is great.

J. E.—It would probably be worth your while to wait a little.

MINING NOVICE.—They appear fair speculations at their present price.

U. L. V.—Taking everything into consideration, we think it would be advisable to join in the reconstruction.

"STICKING TOGETHER IN ALL SORTS OF WEATHER."—The friendship between man and man which enables them to stick together in all sorts of weather is a friendship worth having. In times of prosperity some of us can hardly distinguish a friend of this kind from one of the other sort. But let the storm clouds gather, and we soon know who the true friend is. And when the clouds of sickness gather about us we turn naturally and instinctively to Holloway's Pills and Ointment. They are the only friends whose friendship is worth a rap at such times. We know it, and we turn to them, confidently in the knowledge that they will restore us to health.

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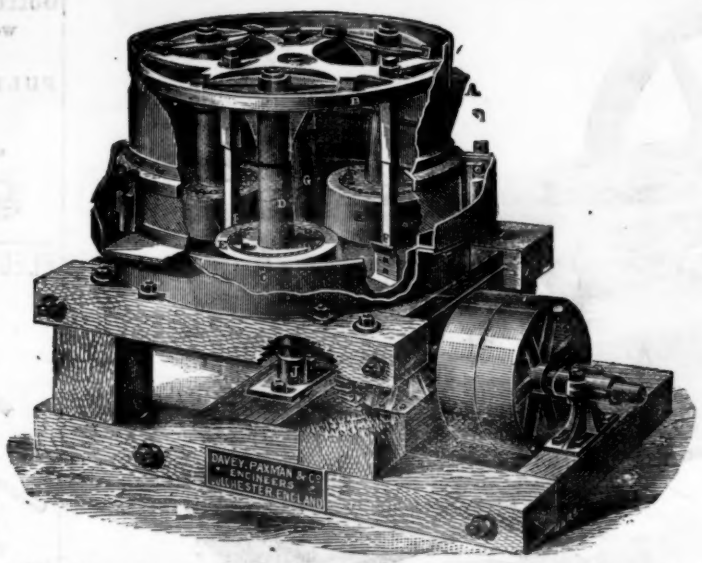

Huntington's Patent Centrifugal Roller Quartz Mill for fine pulverizing in Concentration.

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D. P. & Co., after a great number of careful experiments have so improved and perfected the Huntington Mill that it must now be classed among the greatest inventions of the age. The excellence of its work is undoubted, and its superiority over Stamp Mills will soon cause a revolution in its favour for Quartz Crushing. Its first cost, and cost for freight and transit is much less than for stamps, it absorbs about half the power for the same output, and is continually crushing. It can be fixed and started in 12 hours, requiring for foundations only two pieces of timber 12 in. by 12 in. by 14 feet long, is more reliable than stamps, and has perfect delivery. It is used to its greatest advantage on gold quartz, for, because of its excellent amalgamating properties, it catches about 75 per cent. of the gold put into it.

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GEOLOGY AND MINERALOGY OF SHASTA COUNTY.

By HAROLD W. FAIRBANKS, F.G.S.A
From the Californian State Mineralogist.

VI.

(*Continued from page 550.*)

THE great beds of limestone which form the summit of the divide between Squaw Creek and Pitt River for a number of miles strike across Squaw Creek about 9 miles above Madison's and become less prominent northward. In fact, it is not continuous, but swells in bunches, then pinches out. It is conformable with the slates, having a vertical dip, and contains very poorly preserved fossils. Traces of fossils appear also in the slates, but no specimens could be obtained. This belt of limestone extends north to the summit of the divide between Squaw Creek and the McCloud River. In this section the hills are brushy and steep, with very little good timber. The valleys are narrow and contain but a small amount of level land. The country is picturesque, but almost unknown, except to prospectors. The height of the valley at Kelley's is 1500 feet. Strata of a coarse fragmental rock are interspersed in the slates; frequently they contain rounded pebbles of felsitic and porphyry-like appearance.

Five miles north of Madison's the limestone, which at the point where Squaw Creek crosses it, dips 80° south-west, turns and apparently in part caps the hills, with a slight dip to the east, and in part pitches at a much greater angle in the same direction on their eastern slopes. There is evident'y

A Sharp Fold,

the nearly horizontal part lying to the west and presenting bold cliffs hundreds of feet high. The highest points rise to about 4000 feet. Six miles above Madison's some fossils (brachiopods) were found in the slates between the limestone and Squaw Creek and apparently underlying it. The limestone itself contains but few fossils until the southern extremity of the high ridge is reached, and there they are abundant and well preserved. At this point, just north of the trail from Madison's to Pitt River, the limestone folds over sharply to the east and assumes a vertical dip. A close examination of this high limestone ridge showed that little of it approximates the horizontal, but that the great mass dips to the east. At the southern end of the main body is a portion nearly level, rising in rugged cliffs and pinnacles. It has been crushed to such a degree that the bedding is often destroyed. The colour is generally gray, but it is thickly intersected in all directions by veins of white secondary calcite. It does not appear to extend farther south-east than Pitt River, and in all probability does not belong to the same horizon as the limestone on Cow Creek. From Pitt River up to the summit of the ridge the course of the limestone is north 40° west, dip vertical. At the top of the ridge

Great Crushing

has taken place, and it has been thrown into a north and south direction, which position it keeps for many miles, when it again bends towards the west. South-west of the southern limestone peak, between it and Squaw Creek, the slates strike north 60° to 70° west. The greatest width of the limestone is about one mile, but in the centre of the highest part of the ridge another sharp crest starts and runs south 50° east for a distance of, perhaps, 2¼ miles.

The fossils from these limestones are remarkable in many ways. A part of them are very finely preserved, and differ in character from any before found in the State. Another curious thing is that no corals of any description were found. From position the limestones might be supposed equivalent to those on Cow Creek, but there is a total dissimilarity of fossils. It is my belief that they represent a geological horizon younger than the carboniferous, and older than the fossiliferous beds of Big Canon.

In a gulch at the extremity of the main limestone range there is an opportunity to study the transition from limestone to slate, made doubly interesting from the fact that a portion of the fossils in the limestone can be followed for 1000 feet into the slates. The limestone first becomes slaty, then argillaceous, and finally there appears blocky and fine cleavable slates. Fossils can be traced all the way for 1000 feet across the strike of the slates, and at that point the

Ammonites are Very Abundant

as impressions merely. At two spots, one three-fourths and the other a mile in a south-westerly direction, traces of fossils were found in the silicious slates.

The slates continue west from Bare Valley about 3 miles, with dykes of porphyritic rocks. Then a change takes place, and the prevailing rock becomes a fine-grained, greenish crystalline diabase, with occasional dykes of porphyrites. Between the branches of Stillwater, on the Redding Road, there appears a bunch of white crystalline limestone. On the west branch of Stillwater the Chico sandstones make their appearance. These are followed by a compact volcanic ash, like that at Millville. This is followed by quaternary gravels, and about Sand Flat there is a large area, perhaps 2 miles in extent, covered by the Chico sandstone, rich in fossils. The western part was covered to a considerable extent by auriferous gravels, and much of it has been sluiced off. The gold in the gravel must have been derived from the range of hills near Churntown, where there are a large number of gold-bearing veins.

It is difficult to determine the character of the massive green rocks in the vicinity of Churntown. There is no defined crystallisation nor any traces of stratification, but they are probably ancient and highly altered intrusives.

As one goes north from Redding the auriferous series is met first about 2 miles south of Buckeye, and is frequently seen along the road from this point to Stillwater Post Office. South of Buckeye it is

A White Feldspathic Rock,

but northward it is replaced by green dioritic rock and occasional strata of slate.

Two miles south of Stillwater the rock is a coarse micaceous diorite. Dykes of diabase and quartz porphyry also appear.

Between Bass and the limestone, or Gray Mountains, the rock varies greatly. There are quartz porphyries, massive green varieties, and some of undoubted sedimentary origin.

The limestone forms a ridge of steep jagged rocks, rising 2400 feet. It is a continuation of the McCloud limestone, though at the point where the Pitt River breaks through, it pinches out. The body of the limestone dips east 40° to 50°, but on the western side of the mountain peak it is nearly level. The strike is irregular, showing a longitudinal compression. It is north and south to north 25° west. The limestone lies almost wholly in intrusive rocks of varying composition. It is broken up into detached fragments, and seamed and cut by dykes and bunches of this rock. Diabasic and dioritic rocks seem to prevail. They are fine-grained, and along the western contact are strongly impregnated with iron, and leave a deep red gossan capping. Since my visit a body of good iron ore has been developed here. The limestone seems not only to be broken on the surface, but does not go down deep. In many places it merely caps the hills, a fact shown in the transverse canons. These apparently detached masses extend in a north and south direction. The northern most has a thickness of about 800 feet, thinning out towards the south. In the course of three miles it almost disappears, save for widely detached bodies of small size. One is a quarter of a mile south, a second half a mile west, and a third is four miles south-west. The wide separation of these limestone bodies, which certainly belonged to the same horizon, indicates very clearly the eruptive nature of the

Fine-grained Greenish Rocks

which prevail in this section. The rock east of the limestone is closely related to the quartz porphyries. One mile east of the limestone is a north and south contact of the slates with the eruptives. The slates dip east at a very small angle, while two miles east, on Bare Mountain, they dip west at about the same angle. This forms a synclinal, whose inverted arch can be seen plainly from the north.

(*To be continued*).

WORK is progressing satisfactorily at the Government battery at Mount Torrens, South Australia. Most of the 200 tons sent to the battery by the Black Snake Company has been put through the stampers. The machinery is working well.

MINING IN CORNWALL AND DEVON:

NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

THE past week has been practically a repetition of most of its predecessors since Christmas, and, if anything, the dulness has been intensified. Buyers continue exceedingly shy, and will probably continue in the same mind until they see a marked improvement in the price of mineral. One would have thought that intending speculators would have been glad of an opportunity such as at present affords of picking up cheap stock, because prices are not likely to be any lower, and when the reaction does set in sellers will be as difficult to find as buyers are at present. So many people have doubtless made up their minds to buy with the rise which must inevitably follow the existing depression that the upward movement is likely to be very rapid. The opportunity will consequently be lost if it is not speedily taken advantage of. Cornish mining never offered better chances to the plucky speculator than just now. The mines are, on the whole, looking better than they have for many years; the quantity of tin which is being raised was rarely, if ever, proportionately higher, so that in addition to the increase in the market value of properties which must accompany the enhanced price of metal, there will be the additional advantage of largely increased profits.

NOTWITHSTANDING the unfortunate accident at Dolcoath, the effects of which, we regret to say, had not been overcome at the time of writing, it looks as though they are still returning a large quantity of tin. At the ticketing on Tuesday 42 tons were sold, and as Dolcoath does not usually ticket the whole of her returns, it is assumed, rightly or wrongly, that the quantity ticketed was in the usual proportion to that sold privat ly. If so, although this is much below the nominal quantity, they must be producing more than people generally believed to be possible under the circumstances. The 4 inch Tangye's pumps which Captain Thomas referred to in his recent report have, we believe, been fixed, and are working very satisfactorily. By this means water which has accumulated below the 400 is being pumped back to Harriett's, and a decided effect has already been produced. The Harriett's engine must be working at its full power, especially with this fresh addition of water. The presence of water in the bottom levels for so long a period must be a matter of serious import, but it is confidently hoped that when the lower part of the mine is again available for working no great damage will have resulted.

WITH a commendable determination not to be again caught napping, the Mining Association and Institute have been devoting some attention to two Bills now before Parliament, which, though only in a slight degree, affect the mining industry of the county. The Eight Hours' Bill is really a coal miners' measure; it owes its origin entirely to the powerful organisation which is practically confined to colliers, and has apparently been drafted without any reference whatever to the conditions under which the men employed in metalliferous mines pursue their employment. As a matter of fact, the average number of hours worked by the Cornish miner is rather under than over the prescribed eight, but the tributers, who form an important class among mine employees in the West, would, under most circumstances, be adversely affected by a rigorously enforced eight hours' law. The same remark would apply to the fillers. Perhaps the best solution of the difficulty would be the exclusion of the streamers from the provisions of the measure, and for the reasons given above it is not likely that the promoters of the Bill would offer any serious opposition to such a proposal. The Factories' and Workshops' Act Amendment Bill will not interfere much with Cornish mines, but opportunity may be taken of the discussions in committee to consider the position of the tin streamers under the existing law.

THE new vertical shaft at the Village Main Reef was sunk 185 feet in March, making a total depth of 362 feet. This was a record for a month in the rate of sinking.

THE PILBARRA GOLD FIELD (NORTH WEST AUSTRALIA.)

By ALBERT F. CALVERT, F.R.G.S.

I HAVE already spoken of Coolgardie and Murchison, and I have endeavoured to point out how singularly their geographical position illustrates the theory of a great belt of auriferous reefs traversing the western part of Australia. With the exception of a comparatively small triangular space, the Murchison Gold Field lies in the division known as The Gascoyne. My views regarding the permanency of that district I have set forth to the best of my knowledge and belief. To the northern boundary of the Gascoyne division there is another field called the Ashburton. It derives its name from the Ashburton River, where early in 1890 gold was discovered. The metal was found in a creek flowing down a gorge about 200 feet deep between steep cliffs of clay slate, capped by almost horizontally bedded limestones. This river is about 500 miles long, and discharges its waters about 60 miles west of North-West Cape. Gold was first found about 150 miles from the coast.

I merely refer to this field in passing, although I may at a future time revert to it. Some portion of its northern area enters the north-western division of Western Australia, and taking a north-easterly direction by land, we find somewhat to the southward of due west from Dampier's Archipelago, Pilbarra Gold Field, the subject of the few following remarks. The proclaimed area of the field is 32,000 square miles, or just about the size of that country where gold is said to be so scarce, and trouble so plentiful—Ireland. We scarcely realise the immense extent of Western Australia.

The Nicol district was discovered by a Chinaman, who picked up a nugget 33 ounces in weight, and showed it to his master—a doctor—for whom he acted as cook. This Mongolian was an exception to the rule, which teaches us to regard the "Heathen Chinee" as a person endowed with exceptional cunning. The doctor, however, appears to have been possessed of the usual amount of *auri sacra fames* and cuteness accredited to sons of Æsculapius, so he promptly applied for Government authority to work the claim. He got the permission, but does not appear to have made much profit out of his servant's discovery.

These diggings are situated some 12 miles west of Roebourne, and a fair quantity of gold has been won from time to time. The rocks present a peculiar streaky appearance, owing to the veins of black tourmaline in combination with compact hornblende.

The whole area is one mass of mineral deposit. Copper, for examrle, exists in large quantity, and there is an abundance of ironstone blows which probably contain gold, and no doubt silver and lead will be revealed when the water level is reached.

None of the West Australian gold fields has been more handicapped than Pilbarra, which, I may mention, contains within her boundaries three very important subordinate fields, viz.:—Marble Bar, Bamboo Creek, and Nullagine, which bear the same relation to the parent field as Coolgardie does to the declared area of Yilgarn. Hitherto indifference and neglect have characterised the attitude of the authorities towards this great tract of auriferous country. The southern fields have been advertised and subsidised, while Pilbarra has been figuratively "left out in the cold." Only figuratively, however, for her climate is anything but chilly. The field, in short, has suffered from every ill that an untried, unknown, and distant gold field could endure; but she has always possessed a few miners bountifully endowed with pluck and determination, together with confidence, in the ground they had selected. To these men Pilbarra owes its recognised position to day, and when her golden treasures have been fully disclosed, it is to these brave pioneers that Western Australia will owe an eternal debt of gratitude. Strong arms and stout hearts were their mainstay and their capital; but these have sufficed to create great nations ere ever a coin was struck from any mint.

Roebourne is the chief town of this district, and contains a population of 480—according to the latest year book—the males numbering 355, and the females 125. In this village, as we should call it, there is published a little four-page newspaper, entitled the *Nor' West Times and Northern Advocate*. It costs 6d., and does not forget to speak out. Here is a sample of its views:—"We were told to prove our mines payable, and the Government would lavish money on them, as they have done, and are still doing at Yilgarn. The Marble Bar field has long since been proved, but nothing further than promises from Ministers, intended only to keep us quiet, have we received. We are tired of listening to these Ministerial promises. We have been gulled long enough by them, and shall not be satisfied until these promises are fulfilled. We have completed our part, and the least the Government can do is to act uprightly towards us. Wire and material has, we are told, been indented for our promised telegraph line from Condon to Marble Bar; this work should be immediately taken in hand. But although we have been meanly treated, we have shown to the Southern Government that the northern miners are not a class easily disheartened. Now, we can boast of holding the two most important gold fields in the colony (Marble Bar and Bamboo Creek), besides the well-known Mallina Mine, which is now about to be worked again on more advantageous lines," . . . and so forth.

I may state here that at the request of the owners, I examined the Mallina and Mallina Extended Mines, and reported as follows:—

"During my explorations in various countries it has never been my privilege to inspect a property where the vast extent of ore gave such a high average. I have seen rich strings and shoots, generally running diagonally across the reef, but in nearly every instance a very large amount of barren and low average ore had to be raised to reach them, thereby reducing the profit to a very small item . . . . but at the Mallina Mine I propose to stope down the whole of the reef from end to end, as there is not a single ton of ore which would not be worth treating in this great champion reef.

"Nothing has been done to develop this mine excepting sufficient workings to prove the enormous value of the property and the constancy of the yield over a large area . . . . still, when we consider the length and breadth of the reef, improving in richness and increasing in width as we go down, the quantity of available ore may be reckoned by millions of tons—in fact, it would be impossible to approach anything like an estimate in figures. . . . . This is an exceptional property, the equal of which I may never again have the opportunity of inspecting. With so many leaders, shoots, and strings carrying visible native gold traversing this great champion lode, it would be almost impossible, until the mine was systematically worked, to strike what may be termed a fair average yield; the richest ores appear on the hanging wall, which would give very big results; then there will be a section towards the middle of the lode, where very large bodies of ore occur, which will give an average of from 5 ounces to 6 ounces to the ton, and as the footwall is approached the yield would be less."

Regarding this mine, the Government Geologist reported as follows:—

"On the Mallina claim there are two outcrops of quartz. . . . A shaft was, therefore, sunk 27 feet on the south side (footwall) by the cap of the large reef. . . . A drive was put in to the north on this level to test the main reef, which here proved to be slightly over 10 feet wide, and of so greatly improved a character that the work of testing it was carried on in a westerly direction by a series of steeps or slopes. The reef not only improves in this direction, but carries gold in the solid stone, the richest specimens being on the footwall. Four tons of stone sent away to Melbourne for trial crushing from the main reef proved so good that there is every reason to hope, from the large quantity of stone, its improving character in depth, and the richness of the small reef which will probably join it, that this will eventually prove to be a very valuable property."

Space forbids me to make more than this brief reference to Mallina; let me, therefore, conclude by saying that the stone exhibits a very rich association of gold with antimony, which will necessitate careful and thoroughly scientific treatment. Hitherto money has been simply thrown away through the adoption of absurdly futile methods of separation. The mine lies almost in the centre of Western Australia, about 82 miles from Cossack and 75 from Roebourne—the nearest sea coast lying about 25 miles to the south.

I shall not attempt to describe or even give a list of the numerous claims throughout this vast gold field. Pilbarra itself, which gives the field its name, is a narrow strip of auriferous country about 2 miles in width, and running in a north-east and south-west direction. The gold is not water-worn, and has been found in rich but limited patches almost on the surface. For a time it yielded large quantities of alluvial, but soon became exhausted. In January this year, however, it was the object of a small rush, owing to the finding of about 1000 ounces of gold, including one nugget weighing 298 ounces, and three averaging 100 ounces each. This, however, was too good to last, and like all surface finds, proved a delusion and a snare to the vast majority of the "rushers."

Marble Bar and Bamboo Creek are generally bracketed as if nearly identical or very close neighbours. Doubtless they lie in the same direction, but they are separated by some 60 miles. The first named is situated close to the Coongan River, and is distant eastward from Roebourne about 200 miles. It contains many claims of exceeding richness, some of which, such as the General, the Stray-Shot, the Augusta and Homeward Bound, and the Mount Prophecy have yielded, and are yielding, good results under wise and skilful management. A new reefing area has been opened up at a place known as "The Big Schist," about four miles south of Marble Bar, and here several claims have been taken up and are being successfully worked.

Bamboo Creek is about 60 miles to southward of the bar, and is probably quite as rich in gold; but for various reasons the workings have been kept back. One obstructing cause is the hard nature of the ground, which makes sinking very expensive. Then there is the high rate charged for crushing, and the conviction which exists among the majority of owners that *a large percentage of the gold (which is very fine) is lost for lack of better gold saving appliances.* The words italicised are not my own. I have taken them from the report of Mr. Lionel R. Davies, Warden of the Pilbarra gold fields. The loss of gold throughout the mining districts of Western Australia is beyond computation. It is simply enormous, and until adequate scientific knowledge is brought to bear upon the process of separation, I shall not be surprised to hear the oft reiterated story of abandoned mines and lost capital. It is to be hoped that these sad lessons in the school of disappointment and failure will eventually have a beneficial effect, and bear fruit in the shape of a determination on the part of private owners and companies to see that they secure all the gold held in their hard-won stone. The farmer when he has reaped his field of wheat is careful to see that the ears are empty before being cast aside. The squatter is not apt to leave half the wool on his sheep's backs. And yet the gold miner is obliged to leave more than half of his wealth behind him locked up in the rock, or mixed with other minerals. It will be a new and glorious epoch in West Australian mining when the miner threshes out his gold to the last grain, even as the farmer deals with the harvest.

The Nullagine gold field is situated on a creek of the same name, which is a branch of the De Grey River. By road it is some 300 miles to the eastward of Roebourne, and about 120 from the coast.

The work at present being carried on appears to be chiefly going over old ground and surfacing on the slopes. Colours are abundant, but the ground not always payable. Very little dry blowing is done, most of the washdirt being carted to the river and put through sluices.

On the conglomerate, as it is called, some fine diamonds have been found, and a lease has been granted to the Messrs. Brookes for the purpose of searching for these gems. I have no very recent news as to the progress they have made or the success they have met with.

I have spoken of distance and discouragement from the authorities as serious hindrances to the development of Pilbarra. I now turn to the oft-repeated cry from the gold fields—want of water. This does not form a very serious obstacle on Pilbarra, as elsewhere. I need not dilate upon it. Where the very first requisite of life is scarce, hardships otherwise bearable become increased a thousand fold. During this year Mr. Alexander Hamilton has been sinking wells by order of the Under Secretary of Public Works. Nine different bores, I understand, were put down between Condon and 12 miles, but all the water struck was salt. I cannot but think that, for drinking purposes at least, condensers might be used to advantage in certain districts. In any case let us hope that every effort may be made to ameliorate some of the privations of the small community at present on Pilbarra field. It is hard to imagine a territory about equal in size to Ireland, with a population of 500 souls.

I will take leave to wind up with a little story from Mallina, which strikes me as like "the shadow of a great rock in a weary land." It seems that the discovery of Mallina was made by a boy who picked up a chunk of rock to throw at a crow, and was astonished at its weight. He showed it to one of his elders, who recognised that it was half gold, and immediately galloped into Roebourne to make known the find. There was naturally great excitement; but the gentleman who lost his head most completely, was the Government Resident, who, as he thought, instantly wired the good news to his official superior at Perth Unfortunately, however, in his haste he telegraphed as follows: "Great discovery and excitement. Boy picked up stone to throw at crow 80 miles away." To this the puzzled Perth official replied:—"Please complete statement as to what became of the crow"——

THE WEST AUSTRALIAN GOLD FIELDS.

EXPERIENCES OF A SPECIAL CORRESPONDENT.

—INTERESTING EPISODES.

IN view of the great interest which is being taken in the newly-opened gold fields in Western Australia, the *Melbourne Argus* despatched a special correspondent to the new El Dorado. This gentleman's letters from the Coolgardie district are full of interesting details of the life in this region, which, he says, has been truly termed a "land of sun, sand, sorrow, salt, and sore eyes." One of the most thrilling episodes related in his letters is the discovery of the Kurnalpie gold field by Michael Fitzgerald, who has been one of the most successful prospectors in this part of the world. Michael Fitzgerald, the writer says, passed through Kurnalpie some six months ago on his way to some pastoral country he had taken up, and when there he picked up some gold on the surface, or specked it, as the technical saying is. He pushed on to his destination, and got back as soon as possible, but on his return he found three other parties there. However, he and his mate set to work, and got a fair amount of the precious metal. Their provisions, however, ran out, and they had to make a journey to Coolgardie to replenish. This they did by a circuitous route. On arrival they pretended to be played out and quite poverty-stricken, and got their supplies on credit from one of the local storekeepers. The old proverb that a still tongue maketh a wise head was disregarded by one of them, and when in the store he let hints fall that convinced three men who were there that the whole affair was a pretence, and that they were really on a good thing.

Accordingly one of the three tackled Fitzgerald, told him that they were sure he knew of something good, and if he did not come to an arrangement they would track him out. A mutual understanding was arrived at, which ended by the five forming one party and going out to the find. A good many others in Coolgardie were suspicious about the affair, and the greatest secrecy had to be observed in their departure. They left the town at two o'clock in the morning, and by a way opposite to that which they intended to take. On arriving at the field all went well for some time, and gold was got in plenty. The water gave out, however, and they had to return to Coolgardie, which they reached after terrible suffering. On arrival the news of the wonderful find spread, but the men were reticent. One of them, however, was detached from the rest, and induced him to turn "dog" in fact, as they graphically term it, and lead out a celebrated explorer with camels, whose mission was to peg out the principal quartz reefs on the find. The others had no camels, and were at their wits' end what to do, when the owner of two splendid camels offered, sooner than see them beaten, to lend them his animals. The offer was gratefully accepted, and, while the distinguished explorer went out by way of the White Feather (which is almost north 46 miles from Coolgardie, and then 60 miles due east to the find), they struck out directly across country from Coolgardie. When their quondam mate arrived he found he had been forestalled, and all the reefs worth pegging out as far as they were known secured.

The chief difficulty that the prospectors had to face was the awful scarcity of water, and before Fitzgerald's party had been at Kurnalpie long they suffered great privations. They had to pack water from a guamma-hole, called Yawei, but one morning the packer brought the doleful intelligence that the hole was dry. Fitzgerald started off to another hole called Yendi, some 13 miles away, but found that dry. He went on further to a third, but with the same result. Here, however, he met some blacks, who told him there was a hole further on called Kuddenna, where there was plenty of water. He found water, but it was full of dead emu. Fitzgerald's horses were now done up, and caved in one by one, so that, although starting with six, he had only two remaining. He could not get back to Kurnalpie, as he would have had to go 60 miles through a waterless country with famished horses, so he went on to the "Lagoon"—his own country. Here there was plenty of water, but it was useless with two horses to pack water back to his mates 75 miles off, so he pushed further on to the one station in that district—Fraser's Range—and after recruiting here for a while made his way back to Coolgardie. Meanwhile things began to look very serious with his mates at Kurnalpie, and after waiting for some time for Fitzgerald to return they had no help for it but to beat a retreat, supposing Fitzgerald to have perished in the bush. They had to walk 55 miles over an unknown country to a small field called the White Feather, distant from Coolgardie some 46 miles, and on starting they had absolutely not one drop of water. They applied to a man who is said to have emptied the water hole, and who was known to have plenty, for a water bagful—a water bag containing a little over a gallon—but met with a refusal.

However, a member of another party there gave them a gallon, and with this amount of water they started to walk through this trackless bush 55 miles to a place, the compass bearings of which they did not know. They had some idea of the direction, but were about a point out, as it afterwards turned out. After travelling for about three days—imagine it, under a burning sun and without a drain of water—they struck a place one of them knew, some 8 miles north of the White Feather. One of the party was an old man of some 60 years, and he had been carried some distance by John Kiernan, the strongest of the party. They finally left the old man where they knew they could find him. The last 8 miles took them 21 hours to accomplish. They were able just to stagger for a few yards, and lie down, and so on. Finally they arrived at the White Feather in a condition that may more easily be realised than described. They were absolutely speechless, and could just point to their mouths. There were many willing hands to help them, and a search party was sent back for the old man, who had wandered away in his delirium from where left, but was ultimately found and brought in. They then made their way into Coolgardie, and as no tidings had been heard of Fitzgerald it was deemed a certainty that he had perished. I may say here, the writer adds, that unfortunately many other men have gone through similar experiences, till it has come to be regarded as nothing very remarkable. When a man or party has nearly died through want of water, he is said to have "done a perish."

MESSRS. WHITE AND JACKSON discovered another very rich patch of stone in their claim at Welcome Reef, Daylesford, Victoria, on April 12, says the *Adelaide Observer*. Since the last rich find they have driven steadily ahead on the lode. After sinking 2 feet only they cut into stone richer than that previously obtained, over 200 ounces being taken from a patch less than 2 feet square. Most of the gold was in lumps clustered together something similar to a bunch of grapes. One piece weighed over 30 ounces. The main body of stone taken out of the lode is estimated to go from 1 ounce to 1½ ounce per ton.

THE crushing returns from the Central Mine show 387 tons, yielding 170 ounces; from New Chum, 203 tons, yielding 639 ounces. The report is freely circulated that a new gold field has been discovered in the far south in the vicinity of Fraser's Range, where about 200 men have been at work for some time. One 82 ounce nugget is reported to have been unearthed. The latest Coolgardie news states that another thunderstorm has taken place, but with little rain. The Government well is now furnishing an abundance of water. Good alluvial gold is reported from the new find near the White Feather, but it is not extensive.

A NEW FIELD FOR NAPHTHA AND PETROLEUM INDUSTRY IN NORTH RUSSIA.

By JOHN ROBERTS, M.E.

No. I.

ANYONE travelling through Russia, however much he may deprecate the lack of progress and enterprise, and the primitive methods and adaptations in vogue amongst the natives, is bound, if he is an ordinary observer, to recognise the fact that from north to south it is a country abounding with mineral wealth, and only requires capital and skill to bring it to the front. Where these forces have been brought into play the most satisfactory results have been achieved. For example, the manganese industry in the Caucasus has assumed gigantic proportions, although it cannot be said that science or skill has played any part whatever in its development. To give an idea of its importance, one firm alone, who entrusted the writer with a commission to inspect one group of the mines, sold in 10 months afterwards £200,000 worth of that mineral. The same thing can scarcely be said of the naphtha industry at Baku, for both science and skill had to be brought to bear upon it. There are comparatively few who can realise the enormous development of this industry, for it would seem incredible to the greater number of people that within the radius of a few miles 5,000,000 tons of naphtha could be produced per annum.

In the near future there is every probability that a similar field of industry will be opened up in the Province of Archangel, along the Uchta River, where the presence of inexhaustible sources of naphtha have been discovered, some, perhaps, previous to the discovery of the beds of Baku.

History has it that the Czar, Peter the Great, shipped from this place a large quantity of naphtha to Holland. It was then called "mineral resin." 40 ditches to connect the naphtha springs were sufficient to supply the wants of Moscow. In 1745, M. Nabatoff, a Russian merchant, built works in the north for the purpose of distilling naphtha, which he shipped to Moscow, but soon after his death the works were burnt down, the ruins of which remain to this day.

No attempt was made to resuscitate the works till about 20 years ago, when the late M. Sideroff, the explorer of these northern regions, commenced in the first place to establish a regular means of transport by steamers and freight boats right up to the naphtha beds, which before his death he succeeded in doing, thereby removing the difficulties which, up to that time, stood in the way of working the naphtha beds on a remunerative scale. The only means of transport was by rivers which are navigable only from 3 to 5 months in the summer.

The Russian Government gave M. Sideroff the full and indisputable right to work these regions so rich in mineral wealth. He laboured as aforesaid, as well as prospecting the country for the minerals, which it was known to contain for a period of 15 years, when he died. He succeeded in establishing the fact that those regions are abundantly rich in minerals, as certified by eminent engineers who have been called in by the successor of M. Sideroff to advise them as to their value.

In 1889-90 a scientific expedition, which was named by the Minister of Domains of the Russian Empire, made close examinations and surveys under the direction of M. Tchernijcheff, the eminent Russian mining engineer, and fully supported the views of M. Sideroff with regard to the importance of the mineral wealth of the country, which is destined to mark a new era in the petroleum interest.

The successor of M. Sideroff, Mr. A Galin, a merchant of the Urals, before continuing the work of his predecessor, for several consecutive years made further examinations and investigations on the spot, and secured from the Government 75 new concessions of petroleum land, covering about as many superficial kilometres, and last year the Government Mining Engineer, M. Boklevsky, was commissioned to make an examination of this question on the ground. His report simply confirmed the conclusions both of M. Sideroff and the scientific expedition.

He has estimated that the petroleum wealth of the North of Russia is enormous and inexhaustible, and concludes that if Baku by means of the petroleum industry has been so surprising in its rapid change from almost a desert to an important centre of industry and commerce, the Uchta country and the tributaries of the Petchora will certainly become much more so, not only on account of the inexhaustible sources of the supply of naphtha, but also on account of other mineral riches, together with the interminal virgin forests which cover the land, only awaiting, like the naphtha industry, a reasonable application of capital and enterprise.

The Russian Government, recognising the importance of this wealth, and with the object of assisting in the creation of a new industry, has just conceded to the successor of the late M. Sideroff an exemption of duties for 12 years. This subvention of 60 kopeks per pood, 1s. 2½d. on 36 lbs., equal to £3 18s. 9d. per ton, which, on 5,000,000 poods, say 80,000 tons, would amount to £465,000, which is only a very small fraction of the annual produce of Baku.

The tentative operations which were conducted by the late M. Sideroff have demonstrated that the beds of petroleum-bearing shists which form the reservoirs of naphtha are 270 yards thick, 100 yards of which is above the level of the Uchta River, and extend a distance of 250 kilometres = 142 miles or more.

The presence of naphtha is also verified by the fact that in different places along the Uchta and the other tributaries of the Petchora, it appears on the surface of the water in the form of large drops or buttons, which, on dissolving, yield very fine inflammable gas, and the residue is carried away by the water. In other places the naphtha oozes up through the soil, and being carried down by the springs gets collected about the roots of plants in tarry masses. My attention was called to a similar phenomenon in the Caucasus, where the tar or grease was collected in such masses that the peasants living about use it for lubricating cart wheels, &c.

According to the opinions of M. Kaiserling, M. Barbot de Marny, M. Romanovsky, and M. Kodneff, there is a close analogy between the geological formation and the formation of the naphtha beds here and those in Pennsylvania. The formation is a combustible schist, known by the name of "Domanique." These schists are impregnated with naphtha, and when heated it loses one-half its weight. It contains from 30 to 48 per cent. of volatile matter, and burns easily, giving off a long red flame. In its natural state it takes a beautiful polish with but little difficulty, and could be utilised for tablets, &c.

The sinkings made by the expedition mentioned above proved that the level of the naphtha is below the Domanique, and that its rising to higher beds is due to internal pressure. They made several pits or borings, and the most important one, on the banks of the River Chuta, a tributary of the Uchta, was about 40 feet deep. At 16 feet deep naphtha flowed abundantly, rising some height. Half a mile from this place the constant flow of naphtha commenced at 10 feet deep. These soundings, whilst showing the presence of naphtha in abundance, were only made in the beds of compact blue slate into which the naphtha could only be introduced by faults or fissures in the stratum, as was confirmed last year by experiments made by M. Boklevsky. He examined a naphtha stream situated at a height of about 3·55 metres above the level of the marsh, and 5·88 metres above the level of the Uchta River. At a depth of 3·93 metres was found a bed of very coarse chalk 88 millimetres thick. As soon as this bed of chalk was broken through the springs from beneath were opened, and the naphtha flowed in abundance. It was discovered that the source of this naphtha was below a fault or fissure filled with sand.

(To be continued.)

MEETINGS OF MINING COMPANIES.

MOSMAN GOLD MINING COMPANY, LIMITED.

A fair profit, but a large expenditure.—Development works still proceeding.

THE ordinary general meeting of the Mosman Gold Mining Company (Limited) was held on Monday, at the Cannon-street Hotel, the chair being occupied by Mr. GEORGE HOPKINS, C.E.

The SECRETARY (Mr. Thomas Winder) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, in presenting the accounts for the year ended December 31, 1893, I will say at once that they are not so satisfactory as we had every reason to expect they would be. Our total receipts have amounted to £31,008, and the expenditure to £28,695, leaving a profit for the year of £2312. Now, dealing first with the receipts, you will see that in the Wyndham Mine, although we raised 1083 tons more than we did in the previous year, the value of the stone was £3966 less. That is a very considerable reduction. As regards the expenses—which are very heavy—your directors have during the whole of the year been in correspondence with our manager about them, and he says it is perfectly impossible to work our mines cheaper, as, in consequence of the narrowness of the reefs and often the patchiness, he has to remove such a large portion of worthless material as against a small quantity of ore. I have a long letter from him here, from which I will read portions. It will show you better than anything else could his views on this question. It is dated January 6 this year, and is in answer to our complaints about what we considered to be the excessive cost of working the mine. He says: "Regarding this vexed question of fortnightly expenses still keeping up to about the same amount, I can only say, with the present staff of men employed, I cannot see how they can be cut down." We have, as you know, a large area of ground, and we are obliged to employ one man, at least, to every acre, in order to retain the leases. He goes on to say:—"Although I admit for explosives the cost is large, it is no more than at other mines here similarly circumstanced." As a matter of fact, our explosives alone cost us this year £1980. It is a monopoly in the hands of Nobel's Company, and I am afraid it will be a very difficult one to break through. Mr. Holliman says:—"I have for some time past been looking up a few companies' expenses for light and blasting material, and find the Mosman Company compares favourably. The Victoria Mine employs about the same number of men as there are working in the Wyndham Mine, and the cost for explosives, &c., is even heavier than ours. Their ground is generally slightly harder than ours, but the reef, which averages about the same size, is more continuous—not in bunches, like the Wyndham Mine. Were our reef double its present size and continuous, the cost for explosives would necessarily, be much lighter—perhaps not one-half the present cost." He then goes into the reason for that, all of which I need not read to you. It is principally a question of double-handed or single-handed working. Then he goes fully into the question of the mills, and that I need not repeat in detail. Then he says:—"Now, as explosives and candles are the only items that can really be said to constitute stores—for the reason that very little else is got or needed—I may mention that in the November accounts explosives were £120 and candles £26, total £146 for the month; the total store bill for the month being only £15 8s. 10d. more. The prices charged for explosives are now ruled by the manufacturer, and not by the storekeeper; therefore, it is not possible to get them at a lower price. We mostly are blasting gelatine, which is 70s. a case. We get dynamite, &c., cheaper per case; but we find, after many trials, that the former is cheapest in the long run. I do not mean to say for a moment but what explosives ought to be cheaper. I think the makers—Nobel's, for instance—make an enormous profit; this is shown by the fact that if another maker comes along with an article as good and cheaper, Nobel's buy him out. Again, the number of hands to be employed. This is a matter, of course, easily regulated so long as the required number is working to hold the ground—viz., one man per acre—unless partial exemption is obtained; but the question next presents itself, if we reduce the hands and stop all dead or development work, where will the saving come in? Suppose we now stop all the men except those who are on a payable reef—that would be fully half—the top expenses would be comparatively greater per miner working than at present; but we could get, say, stone for the next three or four months to show a much better average per ton than at present, and maybe we might save enough to pay a dividend of 3d., or even 6d. But after that, what would be the result? Before any more stone could be got money would have to be found to do prospecting work. I say that more men should be employed, if possible, not less, and push work ahead and prove the mine. I have no doubt but that sooner or later we shall get something better than we have at present—I mean larger bodies of stone which will give even a good ounce per ton. Suppose the stone we have driven through in No. 12 level had been worth 1 ounce per ton, instead of being so poor as not to half pay crushing expenses, we could have kept an additional 10 stamps at work." I need not say that had the quartz raised last year even been no better than it was in the previous year, we should have made an additional profit of £4000, because it would have cost no more to have dealt with an ore of better quality than it did with the ore we had to use. I can only say, on this question of expenses, that we have been constantly calling our manager's attention to it, and have made a great number of suggestions. As suggested by one of our shareholders at the last meeting, we have been sending out stores where we can do so with advantage. We have sent out some dynamite, too, as an experiment, to see if we can do something to lessen the heavy cost of explosives. There is one other point as regards reducing expenses. We promised at the last meeting to take into consideration a further reduction in the directors' fees, and cut them down by one-half. (Hear, hear.) With a view of still further lowering the amount, we propose, as you will see in the report, that we should not fill up the vacancy caused by the lamented death of our esteemed colleague, Mr. Crawford, and by that course we shall effect a further saving of £150 a year. (Hear, hear.) I presume you will have read the manager's report pretty carefully. You will see that during the year he has done a very large amount of dead work. You see, under the head of levels, 1308 feet have been driven in different directions, 430 feet by winzes, and 90 feet by rises, making a total amount of development, including the sinking, of 1926 feet. That, of course, has all been paid for out of revenue. We had hoped that somewhere about this time we should have been able to give the shareholders another small dividend; but the stone falling off so much in value, and there being so many blanks in the vein, have made that impossible. In addition, you will have noticed, from the reports published in the newspapers, that at the bottom of the Wyndham shaft we have for some months been troubled with a good deal of water. I do not think it is a bad sign, but still it has to be dealt with, and only a month ago we had to authorise the manager to spend a sum of about £500 on new pumps, in order to deal with it. These circumstances make it impossible that we can at the present time recommend paying any dividend. As mentioned in the report, so long as the reefs continue as they are, our hope for any increase of profit must be looked for either in increased width and greater continuity of reef, or in an improvement in the quality of ore. Now, as regards the future, the manager speaks hopefully. He says:—"Notwithstanding the comparatively poor results in the past, I believe the future of this mine will be good. It may not be immediately, but I believe it will eventually result. The Wyndham shaft has only just entered the Rainbow block portion of the company's property. It is, I feel satisfied, only necessary to push it down and open out in this direction in order to find ground into which all the rich shoots of gold worked near the surface apparently tend. I may mention that the rich stone coming from the Day Dawn P. C. Gold Mining Company's (No. 3) vertical shaft is only about 27 feet from the boundary of your property, and about 300 feet deeper than your shaft." I daresay most of you know the Day Dawn P. C. Company has a vertical shaft, as he says, very close to our boundary, and from which it has been obtaining very good stone. We have a large block of ground in front—the Rainbow Block—that we have bought, and the Day Dawn Company's property is immediately adjoining. Things there are looking, I believe, fairly well, and the developments made in the Day Dawn property will, if satisfactory, tend very much to improve ours. I do not know that I need say anything about the mill. It has been occupied the whole year, and more than occupied. We raised more stone than the mill has been able to deal with, and we had to get about 300 tons crushed elsewhere. The North Australian Mine is very much the same as it was last year. The reefs there are very small, the ground extremely hard and very expensive to work. We have had the matter of the management constantly before us, and the question we have to decide as regards management is whether the fault lies with the manager, or whether it is in the mine. No manager, however good, can make a poor mine a good one; for, as it has often been remarked, "the mine makes the manager, and not the manager the mine." There is no doubt Mr. Holliman has a very hard task before him from the circumstances which I have mentioned—that is, the narrowness of the reefs and their want of continuity. As to our policy in the future, as soon as we get these pumps in and the bottom of the Wyndham Mine cleared, we shall sink the shaft deeper, because the manager has a strong opinion that he is close on to the reef, and they must go on. I do not see how you can alter your policy. There are the two properties which you have, and you must continue the work in the most economical manner that you can. If the ore is not there we cannot help it; if it is there we must do our best to get it out, to bring it to market, and to make the best profit we can for you. We are having the gold bars sent over to England now. That is a matter which was mentioned at the last meeting. They are sent over and sold in this country, and we get a small benefit from doing this. With these remarks, I will move the reception and adoption of the report and accounts.

Mr. T. E. SYKES seconded the motion.

Mr. CHAYTER urged that the directors' fees should be still further reduced, and cited instances in which some of the directors in Charters Towers had a salary of only £50 a year.

The CHAIRMAN explained that in those cases the directors were the absolute owners of the mine, so that it didn't matter to them how much or how little they received.

Mr. CHAYTER objected to the amount of money which was spent in London expenses, more especially considering the fact that they share offices with some other companies.

Mr. FERGUSSON did not think the board could easily do more for the company than they had already done. They had reduced their fees considerably, and as to their management, it was a mere truism to say that it was economical. They were powerless to widen out the reefs or to put gold into them. They had evidently given much thought to all possibilities of effecting a reduction in the expenses. Those who had bought the shares at their present price would find that the dividend of 3d. was not a bad return upon their money.

Mr. RIDSDALE, by way of protest against the action of the directors in taking fees, moved the rejection of the accounts.

Mr. CHAYTER referred to the large number—83—of men the company were bound under their lease to employ upon the property, and suggested the advisability of relinquishing some of the area. It should not be forgotten that in addition to the number he had already mentioned, there were 25 men employed at the mill. Why should not two companies be formed—one work each of the mines?

The CHAIRMAN replied that this would not decrease the number of men the company were bound to employ, while it would double the expenses of management. The company employed more men than the minimum number made obligatory by the lease, and that was one of the points they had called the manager's attention to. But if some of the men were taken off, and the others put to work the richest veins, the deadwork would remain to be done at some time or another. Everyone knew—no one better than Mr. Chayter—that there was only one proper way of working a mine. The real difficulty was that the stone was poor. As to the oft-repeated objection to the directors' fees, they thought they had met the shareholders very fairly by cutting them down one-half. He was not one to stick hard by the Articles of Association, but it should be remembered that they were empowered by those articles to take considerably more than they had been taking. As to Mr. Holliman, their manager, there were several men in London acquainted with him, and they all agreed in giving him the highest character for efficiency. He personally had the greatest confidence in Mr. Holliman, but matters were not left to him more than was absolutely necessary.

Mr. DAVY seconded the amendment for the rejection of the report and accounts, which was put and lost.

The orignal motion for the adoption of the report and accounts was then put and carried.

The retiring director, Mr. T. E. Sykes, having been re-elected, and the auditors, Messrs. Monkhouse, Goddard, and Co., having been re-appointed, the proceedings terminated with a hearty vote of thanks to the Chairman.

BOOYSEN LAND AND MINING COMPANY, LIMITED.

The question of additional liability.

An extraordinary general meeting of the Booysen Land and Mining Company (Limited) was held on Monday, at the Cannon-street Hotel, Mr. J. W. CHISHOLM presiding, for the purpose of considering resolutions, winding up, and reconstructing the company.

The SECRETARY (Mr. C. Wallington) read the notice convening the meeting, and the SOLICITOR (Mr. Romer) read the agreement.

The CHAIRMAN, in submitting the resolutions, said the two main points for the consideration of the meeting were—first, whether the working capital provided by the scheme would be sufficient; and, secondly, what was the extent of the liability taken over by the new company. Objections might be taken against any scheme of reconstruction, but the one before the meeting had received the assent of the large body of shareholders, and seemed to offer the smallest ground for dissatisfaction. The proposal to increase the capital of the company and to issue additional shares offered some advantages, but had to be abandoned in view of the possibility of some applications arising in the future for additional shares being issued, which would only have a certain amount paid up on them. The solicitor to the company was of opinion that the proposed scheme was quite legal, and no contrary views had yet been expressed. Some shareholders might have wished for the liability to be 3s. instead of 5s. They had, however, thought it the wiser and safer plan to provide ample funds to meet any contingency that might hereafter arise. Unless the full liability were required, it would not be called up. As a matter of fact, the amount of capital provided would be more

than the company had ever had available, one of the chief difficulties of the past having been an insufficiency of capital. When the company was first formed the amount of working capital was £10,000, but this amount with the initial expenses and the expenses connected with the mining undertaken, quickly disappeared, and debentures to the amount of £6300 were issued, which amount was spent in improving the property. Finally, £5000 was raised by the issue of reserve shares, of which £3000 had been expended in the litigation necessitated by the protection of the company's interests, and £2000 in clearing off the debentures. Thus the amount altogether spent on the property was under £20,000, while the amount of working capital which would be provided by the scheme was £23,750. This capital would have nothing whatever to do with mining requirements, but would be utilised for developing the landed estate. The mining rights, when they were dealt with, would be dealt with by a company or companies, providing a special capital for that purpose, of which the company would hold a third interest. The chief liability taken over by the new company was £4300 in respect of undrawn debentures, while the other liabilities were under £2000. There were in addition what were called contingent liabilities, which in their case consisted of two claims filed against the company for grazing rights, and not yet decided. They were, however, advised from the other side that no importance attached to these claims. Passing on to allude to certain criticisms which had been directed to the management of the directors, the Chairman reminded the meeting of the enormous difficulties they had had to encounter, and maintained that, under the circumstances they could not have done better. Remembering that most of the company's area when it was acquired was a proclaimed gold field, and that the directors had overcome that difficulty, and had the area de-proclaimed, and had succeeded in establishing the rights of the company as owners controlling the surface, he did not think there was any ground for complaint against the board. Their policy, too, had been laid before the shareholders from time to time and approved. As to the value of the property, their mining rights, he said, remained precisely as they were, while they had a considerable water supply—quite sufficient to meet any possible requirements they might anticipate. On the board of directors of the new company it was proposed to make two additions, both of them gentlemen closely connected with the business, which additions were provided for by the proposed retirement of two of the present members. He concluded by moving the necessary resolutions for the reconstruction of the company on the lines included by the scheme.

Mr. WYATT seconded the first resolution providing for the liquidation of the company, which was passed without opposition.

Mr. WEBER, upon the question of the second resolution determining the amount of money to be credited upon each share in the new company, contended that a liability of 5s. was not sufficient, and urged that it should be increased to 10s.

This amendment was put and lost upon a show of hands. A poll was, however, demanded, and taken, the result being that there were 29,310 votes recorded in favour of the resolutions, and 19,472 against, whereupon the CHAIRMAN stated that, as there was not the requisite three-fourths majority, the resolutions were not carried.

The proceedings then terminated, it being understood that the wishes of the rest of the shareholders should be consulted upon the question of the liability upon the new shares.

BRITISH BROKEN HILL PROPRIETARY COMPANY, LIMITED.

Rearranging the company's affairs.—The directors at the mine.

The twelfth ordinary general meeting of the shareholders of the British Broken Hill Proprietary Company was held on Tuesday, at Winchester House, the chair being occupied by Mr. J. RUSSELL ROBERTS.

The SECRETARY (Mr. Douglas Petrie) read the notice convening the meeting.

The CHAIRMAN said that the report of the directors for the last half year dealt first with the accounts for the previous year, the consideration of which, it would be remembered, had been adjourned from the last meeting to the present one. As was stated in the report, the accounts had been thoroughly gone into by Mr. Brandon and the secretary, with the result that no inaccuracy of any kind had been found. It was, however, of course absolutely necessary that the accounts should either be adopted or rejected, and the board had no alternative but to move their adoption. Accordingly he would formally propose that.

Mr. ROUSE seconded the motion, which was carried without opposition.

The CHAIRMAN then proceeded with his remarks. The shareholders would, he said, observe that the present board were not at all responsible for the accounts of the last half year. It would, however, probably be expected of him that he should say something with reference to them. At the meeting held on November 20th, 1893, Mr. Woodhead proposed certain resolutions, the substance of which was that the Melbourne board should be called upon to resign, and that the mine should be worked from the colony. When these resolutions were carried, the London board, in a spirit which every Britisher would admire, declined to dissociate themselves from their Melbourne colleagues, and fell with them. Mr. Woodhead consequently undertook to form a new board, and induced Mr. Brandon, Mr. Parbury, and him (the speaker) to join him on the new board. No other gentlemen were proposed, and at the meeting of the company on January 10th, these were duly elected. At the time of that meeting Mr. Woodhead was actually nearing Adelaide, while shortly after it Mr. Parbury also left England. A good deal of responsibility remained with the new board. They had, in fact, from the termination of the meeting at which they were appointed to take steps to ensure the carrying on of the whole of the company's business, and immediately upon his arrival in the colony Mr. Woodhead had to take the necessary steps for the control of the company's mine. The system of tributing seemed to be satisfactory, and they proposed to continue it. Mr. Woodhead had, as he said, to undertake the unpleasant task of dismissing many of the old officers of the mine, and of reducing the salaries of many of those retained. The present staff were working together loyally and energetically, and no exertions were being spared to ensure the economical and effectual carrying out of the company's business. With regard to the accounts, he would call their attention to an item of £4090 7s. 10d. set against timber under the heading of "stocks at mine and Port Pirie." It appeared that the Melbourne directors had accepted a contract for the supply of about a million and a half feet of lumber—why? they had never been able to discover, for there seemed no prospect of any such large amount being required at the mine. They had had, however, to pay the money, as there was no doubt as to the contract having been accepted. They would see from the report how comparatively small the quantity of timber required was, and the only course open to them seemed to be to sell it, and there was little doubt that they would have to suffer some loss. At the head of the profit and loss account was an item of £240, paid as fees to the Melbourne directors. Letters had been written to these gentlemen, asking them whether they did not intend to adopt the same course in foregoing their fees as their colleagues had done. To this they had replied declining to give up their fees. Another item he would mention was the sum of £572 on the last sheet for directors' fees. Some years ago these fees were credited to certain directors, who did not attend, so that the sums had not been claimed, and had now been treated as an asset to the company. Perhaps the meeting would be glad to know that Mr. Woodhead and Mr. Brandon, in their last letter home, had stated that they had made a careful inspection of the mine, and had laid out a series of plans for the future. A cross cut driven east had cut into a lode giving an assay of 7·4 ounces silver to the ton, and 51·2 per cent. of lead. They also stated that it would be impossible to allow the mine to remain in its present condition, and that no mine in that part of the colony had had so little done to it. In their opinion the mine could be made to pay with silver at 2s. 9d. per ounce. The present price was below that, so that they could not hope for any very brilliant results. However, they hoped to maintain their ground. In consequence of the refusal of the Dry Creek Company to take any more of their ores they had not been selling them, Mr. Woodhead thinking it wiser that the ore should remain in the company's possession, rather than it should be sold at so low a price. They must not forget the appalling output of silver which was being made from a neighbouring mine, and which was enough to flood the markets of the whole world. With such extraordinarily rich silver beds within half a mile of their own property, it was only reasonable to hope that similar beds would be found in their own mine. A suggestion had been made at a recent meeting held in the colony that the London board should pass a resolution to recoup Mr. Woodhead for the expenses he had incurred in rendering so signal a service to the company. The London directors, however, thought they could hardly pass a resolution to recoup one of their own colleagues. Should, however, such a resolution be submitted at a future meeting from the body of the hall, it would receive their heartiest support. Considerable economies had been effected by the changes recently made both in the colony and London. The authorities of the mine neighbouring their own had made some proposals for reducing the wages of the employees there. Should this be done, they would take the same course, and thereby make an additional saving. As to the present financial position of the company, the £42,000 which was in hand at the end of last year was still at the credit of the company, invested in securities here and in the colony. There could be no doubt that the prospects of the company had improved very much recently, and he hoped they would continue to do so. The Chairman concluded by moving the adoption of the report and accounts for the half year ending December 30th, 1893.

Mr. H. J. ROUSE seconded the motion, which was carried unanimously.

Resolutions re-electing Mr. H. J. Rouse, Mr. W. Barlow, and Mr. F. Ayres directors of the company for the ensuing year were then adopted, and with the reappointment of the auditors the proceedings terminated.

PALMAREJO MINING COMPANY, LIMITED.

Constitution of the new directorate.

The adjourned general meeting of the shareholders of the Palmarejo Mining Company (Limited) was held at Winchester House, on Tuesday, the chair being occupied by Mr. FREDERICK A. P. PIGOU (Chairman).

The CHAIRMAN, in his opening speech, said that considerable progress had been made with regard to the agreement for the amalgamation with the Mexican Mineral Railway Company, and a plan had been submitted which, he thought, could be accepted by the company, by the Mineral Railway, by the committee of this company, and by the trustees for the first debenture holders of the company, and he believed it would also be acceptable to the Mexican Explorations, who had guaranteed the first debentures. He hoped that in due time the shareholders would be called upon to ratify the proposed agreement. With regard to the question of the new board, he could not give them a satisfactory report. The committee had stuck to its guns—(hear, hear)—and demanded that the gentlemen it suggested at the last meeting as the new directors should form the new board. (Hear, hear.) The present board were willing to accept the committee's suggestions to a certain extent, but not as a whole. The board proposed Mr. Applegarth—(cries of "No")—and himself, two members of the committee (Messrs. Southcott and Wesley), and a fifth gentleman to be chosen by the shareholders, probably Mr. Seward Brice, Q.C. The committee proposed to exclude Mr. Applegarth, and to bring in Mr. Peters—("good")—and that was the difficulty. The next business was the adoption of the report and accounts for 1892, which were before the shareholders at the last meeting. They would then have to receive the report of the committee. Mr. Southcott pointed out that at the last meeting they arrived at the stage on an amendment to the report, which was—

> That the report and accounts now presented by the directors to the meeting be rejected, and that the report of the advisory committee of shareholders presented to the meeting be received, and its recommendations approved and adopted, and that the committee be and they are authorised to call such meetings as they think fit to carry out their recommendations.

The Chairman said that the latter part of the amendment was *ultra vires*, and could have no effect if passed.

Dr. SHERBURN, one of the advisory committee, said the report of the committee was in direct opposition to the report and conduct of the directors. (Hear, hear.) The negotiations which had taken place as regarded the proposed amalgamation had resulted satisfactorily, but the same could not be said as to the question of directors, chiefly from the fact that the advisory committee could not see their way to support the nomination of Mr. Applegarth. (Hear, hear.) He understood that Mr. Applegarth and other members of the board had a strong objection to one member of the committee, namely, Mr. Peters, who had been of the greatest assistance to his colleagues in their investigation. (Applause.) To prove Mr. Peters' perfect *bona fides* in the interests of the company, he would mention that that gentleman had that morning magnanimously said that if Mr. Applegarth would retire, he would sacrifice any personal desire he had himself had, and do likewise. The committee would accordingly call upon Mr. Applegarth to carry out the suggestion which he had made.

Mr. APPLEGARTH: I never said I would retire if Mr. Peters would withdraw.

Dr. SHERBURN said that was the impression given by the words used. The company belonged to the shareholders, and not to the board, and if their Articles of Association were wrong they would take steps to amend them. (Hear, hear.) He earnestly asked the meeting to support the committee.

In reply to the CHAIRMAN, Mr. SOUTHCOTT said he wished the latter part of his amendment to stand for what it might be worth.

The amendment was then put and carried, with but one or two dissentients.

Mr. SOUTHCOTT said that as the meeting had adopted the suggestions of the committee, it remained for him to ask the directors if they would adopt the recommendations made by that body, one of which was that the board should place their resignation in the hands of the shareholders. They were ready to receive them that day—(hear, hear)—and a lot of valuable time would be saved if that course were adopted. On the last occasion the committee agreed to a compromise, and to the names then suggested—Messrs. Pigou, Brice, Wesley, Peters and himself—they were willing to adhere. (Applause.)

The CHAIRMAN replied that he had no authority on the part of the board to accept any new board at the present meeting, but he wished to state that he did not propose to offer himself for re-election. (Hear, hear.)

Mr. SOUTHCOTT said he was authorised to say that Mr. Sykes did not offer himself for re-election. He then asked each remaining director whether he was willing to retire.

Mr. W. J. WOODS replied that he did not feel inclined to resign. ("Shameful.") He was willing, however, to resign when the names of the proposed members of the board were agreed to—but not at this meeting.

Mr. E. J. DU VAL was perfectly willing to retire when they found a better man than himself. (Loud laughter.) There was one member of the committee whom he did not regard as a useful man—("name")—but he had no objection to the other gentlemen proposed as directors.

Mr. EDWARD APPLEGARTH: I do not propose to retire. (Groans.) Don't groan. I have a deeper interest in the company than you have, and I intend to see this through and through to a success, and I do not intend to retire and put the matter into the hands of men who know nothing about it. He contended there was not a gentleman brought forward by the committee who had a knowledge of the business, and he added that he was not going to be long in England nor on the board, but he was going to see good men put on the board before he left it. (Hear, bear.)

Sir EDWIN GALSWORTHY considered that a great deal too much personal feeling had been imported into the question of their future, and he did not think it would be wise for the shareholders to make a clean sweep of the board, and place in command a body of men who had no experience of the position. He would like to see two of the remaining directors, two members of the committee, and a gentleman of standing as Chairman appointed to constitute the board. He suggested that the new Chairman should be Mr. Brice, Q.C.

Mr. SEWARD BRICE, Q.C., intimated his willingness to stand if a large majority of the shareholders desired it. He also pointed out that the advisory committee had no power to call meetings.

Mr. SOUTHCOTT moved, "That it is expedient for the present that the board be increased to its full complement of seven members."

Mr. WESLEY seconded the motion.

Sir EDWIN GALSWORTHY moved, as an amendment, "That the meeting is of opinion that the new board should consist of two members of the old board and two members of the committee, with Mr. Brice as Chairman, and that all necessary steps be taken to give effect to this resolution."

Mr. ROBERTSON seconded the amendment, which was carried by a large majority.

Mr. SOUTHCOTT demanded a poll, but the CHAIRMAN said that a poll could not be taken.

Sir EDWIN GALSWORTHY moved a hearty vote of thanks to the Chairman, and said he hoped Mr. Pigou would remain a director. (Hear, hear.)

The motion was passed.

Mr. SEWARD BRICE, Q.C., explained why a poll could not be taken, but a formal demand was handed up by the committee, and a lively discussion took place on the subject.

The CHAIRMAN finally asking for an expression of opinion from the shareholders whether a poll should be taken or not. (Loud cries of "No!")

The proceedings then terminated,

The CHAIRMAN subsequently announced to the few remaining shareholders that a poll had been insisted on, and would take place at the offices of the company next Tuesday, from 10 a.m. to 4 p.m.

We are informed that after the meeting some of the principal shareholders conferred with the directors and the committee, when it was decided that the following gentlemen should form the board:—Messrs. Seward William Brice, Q.C., LL.D. (Chairman), T. Southcott (Vice-Chairman), T. H. Wesley, J. Peters, Edward Applegarth, T. E. Sykes, and E. J. Du Val.

LONDON AND SOUTH AFRICAN EXPLORATION COMPANY.

Profits still maintained, despite a bad year.—The work in South Africa.

The annual general meeting of the shareholders of the London and South African Exploration Company was held on Wednesday, at Winchester House, the chair being occupied by Mr. C. J. POSNO.

The SECRETARY (Mr. George Brown) read the notice convening the meeting.

The CHAIRMAN said—Gentlemen, as is our custom, I shall commence with comparing the financial statement in your hands with the accounts of the previous year, and I have pleasure in pointing out that the cash distribution has exceeded by £2500 the cash distributed in 1892, and that the distribution in kind was also larger by £5000. Our expenditure in South Africa was £13,529 9s., as against £16,319 12s. 8d., a saving of £2790. Revenue account comes up to £99,115 17s. 9d., compared with £95,524 13s. 1d., again, roughly, of £3500. You will understand that the balance carried forward represents uncollected revenue, as in former years. The revenue outstanding may or may not be in revenue not easily collectable, and that balance, after deducting £2000 for estimated depreciation in outstanding surface rents, comes forward this time at the figure of £69,504, compared with £77,971 6s. 4d. in 1892. This outstanding amount of £69,504 is in the main composed of the three items on the credit side of the balance-sheet. You will observe that surface rent is responsible for £10,000, and that the remainder is mainly composed of the indebtedness of the New Gordon and North-Eastern Bultfontein Company. You will remember that you were called together, and that we discussed with you in the early part of this year, a north Eastern Bultfontein Reconstruction scheme. We of the board did not see our way to recommend that scheme as then presented for your adoption, and you, those of you who were present on the three successive occasions—twice in January and once in February—did not regard the scheme favourably. A new project has since been elaborated, and it is of such a nature that when we meet to consider it, I feel sure it will carry your approbation. We shall discuss the project on Tuesday next, when I hope it will be convenient for you to attend. The claims of the New Gordon Company could not be worked last year by reason of the accumulation of water in the mine. They had to deal with over 100,000,000 gallons of water, but by the end of December last it had been lowered 15 feet, and the latest advices received by that company are to the effect that the water trouble is nearly at an end, and that hopes are entertained of the restarting of mining operations in a month or two. The two companies may be regarded as claim tenants. They have met with reverses which might be seriously injurious were we to deal harshly with them, but if consideration be shown them there seems to be every reason to hope they will become good and profitable tenants in the near future. Business at Kimberley, as elsewhere, has left much to be desired during the past year, and our townships have suffered. Our income, however, on the whole, has been well maintained, and the spirit of enterprise is springing up again, and if encouraged may lead to important developments. I have, I think, dealt with all the main points. The surface rents, under the heading of general receipts, show £37,771 15s. 11d., against £34,263 12s. 7d.—a gain of £1500 odd. Claim rents stand at £53,750, against £54,843—showing a loss of £1090. So that for a bad business year I think you will say we have not got much to complain of. I am now at your service to explain any points on which you may desire information. With your leave I will conclude by moving the adoption of the report and accounts.

Mr. H. B. WEBB seconded the motion.

Mr. WATSON called attention to what he deemed the very excessive cost of the company's administration. It seemed to him that £20,000 a year was a very large sum to spend in that way in one year. The bulk of it went in South Africa, and as to the justice of that it was difficult for them to judge. The London expenditure also was a very heavy item.

The CHAIRMAN, in reply to the discussion, said that he knew of no proposal having been made for the purchase of the company's property; but when any was submitted they would certainly consult the shareholders upon it. Evidently some of the gentlemen who had criticised the expenditure in South Africa had only recently become members, and did not know that the company had been in existence very nearly 25 years. Collections were proverbially difficult, and it should not be assumed that because the amount collected in a bad year was smaller that the work was less also. As a matter of fact, the contrary was the case. Already the expenses upon the other side had been reduced considerably, and he could hold out no hope that the board would be able to effect a further reduction. The shareholders might, however, rely upon their doing their best in the matter. As to the directors' fees, it should be remembered that the system in vogue at the present time had been in force ever since the company came into existence. The board were paid by results. If there were no profits they got no pay.

Mr. H. L. LAWSON, M.P., said he had been in Kimberley for two months, and could testify that the work to be done there was of a most varied and difficult character. The moneys had to be collected with great care and discretion, and it was impossible to get good and conscientious servants unless sufficiently large salaries were paid.

The motion for the adoption of the report was then put and carried with one or two dissentients.

Sir George Prescott, Bart, and Mr. H. B. Webb, the retiring directors, having been re-elected, and the auditors, Messrs. Mardon, Mosley, and Co., having been re-appointed, the proceedings terminated with a hearty vote of thanks to the Chairman.

PIGG'S PEAK DEVELOPMENT COMPANY, LIMITED.

Approval of reconstruction.—Mr. Dicey's report.

Mr. GEORGE RAIT presided over the first general meeting of the above-named company, held on Thursday, at the Cannon-street Hotel, E.C. He said that the reconstruction had been carried through satisfactorily. The directors had not had much cash with which to proceed working at present: but a call of 6d. a share would be made on June 8, which would enable them to do so, while another 6d. would be due in December. There were only three dissentients to the scheme out of 2000 shareholders, amounting to £1042. A singular fact was that the dissentients were the old directors of the company, who claimed arrears of fees in cash. He had thought the late directors had been handsomely dealt with in getting fully paid shares, especially considering that under them the company had gone to bankruptcy, and it was the intention of the board to resist claim to the utmost. The old directors also made some small advances to the company, for which they now claimed their full pound of flesh in the shape of 10 per cent. interest, while other creditors were content with 5 per cent. The present directors were taking no fees, and they felt it very hard that they should be harassed by the action of the late board. (Hear, hear.) With regard to the property, Mr. Dicey had been appointed the manager, and the board had every confidence in him. There was plenty of gold, they were informed, but up to the present they had not found stuff that would pay to work. It was intended to get expert opinion as to the prospects and working of the property, in addition to that of their manager. Assuming all the calls were paid, the company would have about £37,000 at its disposal.

The SECRETARY (Mr. E. L. Clapham) then read the following report from Mr. Dicey:—

Harrismith, Orange Free State, March 3, 1894.

Percy Whitehead, Esq.

Dear Sir,—According to your instructions I have travelled from Pigg's Peak in order to give you all the information in my power, and I have much satisfaction in learning that the information embodied in my report of May 20 last has been of use, and so far appreciated that I am likely to be appointed by the board as their manager. I now append a further report, which I beg you will submit to the directors for their information. I regret to state that the report I had prepared was washed away with my bag in my journey from Pigg's Peak to Barberton, and I was, therefore, unable to submit same to the engineer in Johannesburg as you desired. It would have relieved me from much responsibility if I had obtained another engineer's opinion.—Prospecting: I may state for the last few months I have devoted much time, labour, and expense in prospecting the many valleys that intersect the country between Kobolondo and the Havelock Concession, with very encouraging results, as I find course gold in very many. The length of the grass has prevented me from panning soil on the sides; but my work in this direction has confirmed my belief that there are two belts of gold-bearing strata running through the northern portion of your company's property—viz., the one from the Nottingham Peak on the Havelock, by the Devil's Reef to Durning's Reef, and the other from the Emlimbo Reef, also on Havelock, to the Kobolondo rich quarts, and I beg to urge, for the consideration of your board, that I am at the earliest opportunity placed in funds to carry out the necessary prospecting on the concession. Herewith I give you an approximate estimate of the cost per month for carrying out same.—Pigg's Peak Proper: Clear out and retimber main drive in Peak, sink and drive on Gilbert's winze, also with the use of the diamond drill to prove length and breadth of rich ore in shute, the existence of other shutes, and to a total depth of 500 feet. Approximate cost per month: Two miners, £40; two diamond drill men, £40; 36 Kaffirs, £30; dynamite, timber, &c., £10; total, £100. In regard to this Peak Mine, I think it is desirable to prove, first, the amount of rock that will pay to crush, and, secondly, the dip of the lode. If proved that 4 feet to 6 feet is worth 14 dwt., or the whole 40 feet, averages 3½ dwt., then an engineer be sent by the directors to decide which plan to adopt—to crush the whole or only a part; also, to satisfy the directors whether the company is justified in spending £10,000 on the electric transmission of power (which I have now learnt can only be effectually done at a much greater cost than I was led to believe); erection and purchase of stamps, building dam, &c., and cost of a low level adit at a probable expenditure of £18,000 to £20,000. I beg to point out I have learnt that the Peak gold is valued at £4 per ounce; so if we can prove the gold bearing sandstone is 500 feet long by 40 feet broad and 500 deep and yields 3 dwts. 12 grains per ton all through, the gross yield is worth £437,500; whereas if we only mine 4 feet in breadth, which yields 14 dwts. per ton, the gross yield is worth £175,000 to that depth. In the above calculation I do not wish to convey the impression that the depth of the mine is only 500 feet, as it probably is thousands. In the event of working the whole of the 40 feet of the Peak Mine, it is probable we should find parts that are not worth removing, as, indeed, is the case of 50 feet at the extreme eastern end. These parts we would reserve as pillars to support the south side, which is sandstone, and an occasional buttress being left would secure the safety of the mine to a great depth; but the question of working same as an open quarry, with an occasional heavy buttress, or in the usual method, by stoping and filling in with the soft talcose slate of the footwall, may be decided by the engineer you appoint to consult with me. We know that a total length of 550 feet is gold bearing, less 50 feet not worth working; but there is no proof that the lode may not continue westward to double or treble that length, as the sandstone crops out of the ground for more than 500 yards west of the Peak, and the probability is that rich shutes of ore will be found that will more than repay the working. I may state that once having the electric power transmitted to the Peak, the power for all hauling, drilling, and hoisting, when necessary, would be available, and largely decrease the cost of mining; for the first 360 feet we may with certainty conclude the total expense of mining and milling will not exceed 7s. per ton. It is only of late that the diamond drill is used to test rock in the face of drives, crosscuts, &c., this enables the manager to take out of the mine only payable ore, leaving the non-paying, and in a considerable length of reef where the paying ore is in shutes this is invaluable. On the board being satisfied by another and independent testimony that the Peak Mine is worth working, and instructing me to open this mine, I would ask the directors to permit the employment of an engineer from the Rand to consult with me as to the plans of work I will have prepared, and to formulate a plan for the best and most economical method for future work, the determination of the best site for mill, dam, and general plan of working same; also that when the board decides on the erection of mill I may be permitted to employ a first-class mechanic from the Rand to erect same.—Devil's Reef: The position of the rich find and the 3 inch leader just north of same, which pans 25 dwts. to 30 dwts. has engaged a great deal of my time, services, and consideration of late. From study of the ground I conclude that there is either a fault in the formation, or that the late management misapprehended the position when they made an adit through the hill below the rich patch. The accompanying sketch will make clear to you my belief that if the rich gold was shed from the leader which I propose following—and from the nature of the ore in the patch, and the ore in the 3 inch leader, I conclude it is the source from which the patch originated—in my opinion, there is a strong probability we shall find another rich patch on sinking. Should the sinking and driving on the leader not lead to a discovery, I must then look further north for the reef which yielded the rich patch; but I propose following this leader at once. Approximate cost per month: One white man, £20; eight Kaffirs, £20; dynamite, timber, &c., £10; total £50.—Durning's Reef: This reef is composed of stringers of quartz from ½ inch to 3 inches in width, formed in talcose slate, the whole being about 3 feet wide. It can be traced on the surface for about 300 feet, and is situated on a ridge within 100 yards of the Pouinyan River, which at this point is equal to all requirements as to power, &c. I propose to continue the winze, now sunk 30 feet, to 100 feet, and then drive east and west. Should this work prove that the general average of the reef is 3 feet wide, and yields 5 dwts to 8 dwts, I would then propose to sink winze to lowest level available—a total of about 200 feet—drive an adit from level of stream, and propose for your consideration the erection of 10 or 20 stamps and Pelton wheel. I may state for your information that the working of reef in talcose slate is so inexpensive that I should expect the total cost of mining and milling would not exceed 2 dwts. Approximate cost per month to proceed to sink winze at once:—One miner, £20; ten Kaffirs, £25; dynamite, &c., £5; total, £50.—Dicey's Reef: I have discovered close to the Kobolondo boundary, on northern portion of your property, a quartz reef 14 inches wide, panning from 20 dwts. to 25 dwts. I propose to sink and further prospect this reef in the hope it may be a true reef, and continue in a north west direction to the valley of the Commisan River, where there is good water power capable of running a 50 stamp mill. Approximate cost per month: One white man, £20; ten Kaffirs, £25; dynamite, &c., £5; total, £50.—Building: I would propose for your consideration a carpenter be engaged at once, to erect store room adjoining the office at the Peak, at present the tools and stores being scattered at different places all over the property; also, I would point out the white ants have eaten away the foundation piles at the manager's house, and unless this is attended to immediately the house will go to ruin. Approximate cost for, say, two months: One white man, £20; eight Kaffirs, £20; total, £40. Furniture: I would bring to your notice that the late company furnished the manager's house completely; but the late manager sold, or otherwise disposed of, nearly the whole of same, and that it is necessary about £50 should be expended in this direction—say, £25 this year and an equal amount next year.—Tools: I regret to state that on the departure of the late manager everything under this heading that was saleable and valuable was given away or sold at a nominal price, and we shall require a stock of tools, forge, &c., before serious work is contemplated.—Agriculture: I beg you to take into consideration the following:—I have extreme difficulty in obtaining meal for Kaffir food, as neither white men nor natives are farming in this district; so I should be forced to contract with dealers in Barberton, or elsewhere, to deliver the quantity required at a cost of about 30s. per muid. I would point out a great saving can be attained in this direction by purchasing the house belonging to Mr. Vere (say, at a price not to exceed £100), who was until lately farming on the company's property. We can then let the farm, under an agreement with the tenant that he must supply the company with mealies sufficient for their requirements at a price not to exceed £1 per muid.—Native labour: I would point out that native labour at present in Swaziland is scarce, and wages averaging from 30s. to 35s. per month, which is very high. Until it is generally known that work is being carried on at Pigg's Peak I may have to pay a small premium to secure natives at first starting.

Summary of Expenditure—For three months from March 31 to June 30:—

Devil's reef	£50	per month	= £150	
Durning's reef	50	,,	= 150	
Dicey's reef	50	,,	= 150	
Repairing buildings	40	,,	= 80	
Manager and assistant	60	,,	= 180	
Tools and unforeseen expenses	50	,,	= 150	
				£860
Pigg's Peak Development.				
For six months from June 30 to December 31	£200	per month	= 1,200	
Manager and assistant	60	,,	= 360	
Tools and unforeseen expenses	50	,,	= 300	
One prospector on the northern portion of concession	50	,,	= 330	
				2,160
Total				£3,020

In the above estimate, I assume the first three reefs will be proved paying or otherwise in that time, and that any work afterwards carried on would be of the nature of permanent development and investment of capital.—I remain, Sir, yours faithfully,

(Signed) EDWARD C. DICEY.

Mr. CONCANON thought the action of the debenture-holders of the late company in taking ordinary shares for their claims was a matter of congratulation to the shareholders, for, at the risk of a very small amount, it enabled them, at least, to have a run for their money.

A vote of thanks to the Chairman closed the meeting.

SAN SEBASTIAN NITRATE COMPANY, LIMITED.

A very satisfactory report.

The fifth annual meeting of the shareholders in the above company was held on Wednesday, at Winchester House, the Chairman, Mr. ALEXANDER R. ROBERTSON, presiding.

The SECRETARY (Mr. Arthur Rowe) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, I am very pleased to meet you under the favourable conditions which exist to-day. You have already had the report presented to you, and I think you will agree with me that it is in every way satisfactory. (Hear, hear.) Before proceeding to analyse the accounts I should like to make a few general remarks with regard to the position and probable future of the nitrate industry. During the spring of 1892 a very severe snowstorm was experienced on the Continent, and, consequently, the demand for nitrate fell off, and we had a deficit of something like 70,000 tons. This year we have had an open spring, and I am glad to say the demand has been such as has never been surpassed. The position of nitrate is very satisfactory indeed. The deliveries for the first four months of the present year have been larger than for the past ten years, except one year, 1891. Stocks and visible supply, on other hand, are less now than they have been since 1889, so that, on the whole, the statistical position of nitrate can scarcely be more satisfactory. These results are mainly attributable to the combination that was carried on amongst all the producers of nitrate—both the coast producers and English companies. Though the combination does not really exist to-day, all the machinery and arrangements that we have had here and on the coast for carrying on the combination still exist, and should at any time prices fall to a rate that might not be remunerative to the producers, I have no hesitation in saying that the combination would be at once resumed; but at present it is not necessary. I will now turn to the accounts. On the side of liabilities, the shares valued at £143,710 stand at the same as last year, and the amount received on forfeited shares—£371—is exactly the same also as last year. The sundry creditors in London were last year £576 and this year £203—a slight difference which scarcely requires explanation. In Chili the sundry creditors last year were for £4072 and this year £3120, which arises simply from the duties which were owing at the time for nitrate which had not been shipped. Then we come to the loan from the bankers, which last year stood at £19,646, and this year is £899 16s. 10d. As we have pointed out to you in the report, we consider this one of the very best features that we have to present to you to-day, for two years ago this item was as high as £32,000. Then we come to the profit and loss. The profit for the year was £14,260. Last year we had to carry forward a big debit balance, thus reducing the profit for the year to £10,289. On the other hand, our property assets stand at £134,262, or a very few pounds difference compared with last year. Our tools, animals, carts, &c., stand at £1538 6s. 11d., as against £2855 last year. That arises from having closed one of our oficinas at Lagunas, which I mentioned to you last year, and we sold off some of the tools and stock. The balance of that amount has gone to reduce our bank loan. The stocks and stores, as per the inventory, stand at £15,403, as against £24,000 last year. I may mention that of the £15,000 of stocks and stores, the greater portion is represented by stocks of iodine held here in London and in the hands of Messrs. Anthony Gibbs and Sons. You all know that that is a very remunerative and paying by-product. We had a report made by a very conservative gentleman, a gentleman well known to all on the coast—Mr. Ritchie. He gave a remarkably good report on them. Then we have made a contract for the carriage of our materials on the Nitrate Railways at a very considerable reduction. We get a reduction on what we have hitherto been paying of 1¼d. for every quintal they carry, and at the rate of production for last year this would show a saving of about £1500 or £1600. As regards the future of nitrate, I can only say that everything looks very hopeful. Never has the statistical position of nitrate been better. The sales made this year have all been at very good prices, and fully up to what they were last year. We are now, I may say, in treaty for some nitrate for future delivery at prices which leave us a very reasonable and good profit. Before resuming my seat, I may say it has been a great pleasure to me to have to meet you to-day, having paid you a dividend and being in a position to pay you another, as you will have seen we propose to do. Last year I said we had worked very hard to get the company into more prosperous and smooth waters, and I think that has been done, so that it will be for you to say whether we shall continue in our position of trust or not. The Chairman then moved the adoption of the report and accounts.

Mr. GEORGE INGLIS seconded the motion, which was put and agreed to.

The retiring director, Mr. Robertson, and the auditors, Messrs. Price, Waterhouse, and Co., were unanimously re-elected.

The proceedings terminated in the customary manner.

THE BEAUMONT PATENT SYNDICATE.—We have just received the prospectus of a small syndicate that is being formed to work the various inventions of Captain E. A. Beaumont, including the well-known Beaumont crutch, tubular stretcher, music bar, book-rack, &c. The temporary office of the syndicate is at 48, St. Martin's-lane, W.C.

THE BONNIE DUNDEE GOLD MINES, LIMITED.

A profit on the year's working.—Mine works vigorously proceeding.—Hunting for the Brilliant reef.

The ordinary general meeting of the shareholders in the Bonnie Dundee Gold Mines (Limited) was held on Thursday, at the Cannon-street Hotel, the chair being occupied by Mr. GEORGE HOPKINS, C.E.

The SECRETARY (Mr. Thomas Winder) read the notice convening the meeting.

The CHAIRMAN said: Gentleman, at the last meeting I think I said all that need be said about the reconstruction of the company, which was very successfully completed, and with regard to the chief object of the reconstruction, which was to find capital for the sinking of the new No. 3 shaft. We ordered the machinery in this country directly we were assured of the success of the reconstruction, and cabled out to the manager at the same time to make preparations for sinking, and to get on with it as soon as possible. The whole of the machinery was shipped early in the summer, and, of course, it took some time to erect; but it was running on December 16, and I am pleased to be able to inform you that it has been working very successfully from the time of its start. There has been no hitch of any sort, although the machinery was ordered here and despatched in pieces. Everything arrived at the mine safely, and was put together, and the manager now speaks of it in the most satisfactory terms. Now you will see in the report the progress made in sinking the shaft; and you will, no doubt, have noticed that the rate of advance in the work is not uniform. That is in consequence of the fact that in places where the ground is very bad there is a good deal of heavy timbering to be put in, and, while that is being done, of course the sinking has to be suspended. On April 5th, when we received the last information before the report was circulated, the shaft was down 510 feet. We had been expecting daily to get farther information as to sinking, and yesterday we got this cablegram:—"Have completed the No. 3 new shaft to a depth of 620 feet. Have cut a formation 6 feet thick, carrying a reef 12 inches thick of poor quality. The reef cut is supposed to be the Queen Cross reef." Now, the only thing that would strike you as being disappointing in the cablegram is the report that the reef, where cut, is of poor quality. Well, it would have been more satisfactory if it had been of rich quality, but there is no ground for discouragement merely because the reef is poor where they have cut it. We shall know something more about it when they have driven on it a little way. I do not know whether Mr. Plant will commence to drive at once, or whether he will continue sinking, because we think there is something much more valuable to go for in depth than the Queen Cross reef. I should think, myself, that after getting a little farther down they would run on the reef and test it. I think you will agree with me that the progress made has been very satisfactory. Between our last report of April 5th and the one of May 22nd, which is something under seven weeks, they have sunk 110 feet, or nearly 16 feet a week. Gentlemen in this room who know something about shaft sinking in this country, and the rate at which they go down, will agree with me that this is a very good record. In addition to that, it is satisfactory for me to be able to tell you that the cost of sinking, so far as we have gone, is well within the managers estimate. (Hear, hear.) Now, as to the mining operations, there has been a good deal of work done during the year on the Queen reef, which is worked from the No. 1 underlie shaft, and also on the Cross reef, which was discovered last year. It is not known exactly what the Cross reef is. It yields a very fair quality of stone—about 1 ounce to the ton, but the result of the year's working—that is to say, of the mining operations, was, as you will see from the report, on the whole, a loss. The receipts from the gold have not covered the whole of the cost of the mining operations; but then you must remember the whole of the deadwork, both sinking the winzes, and driving the levels, which was exceptionally heavy has all been paid for out of revenue, and, therefore, if working had been confined to stoping merely, there is little doubt that a profit would have been shown. As, however, so large an amount of deadwork was included a deficiency resulted. The manager says that notwithstanding this, he quite expects that at no distant date even these workings will produce profit. However, on this occasion it is my business to tell you, that for the year under review these works did not result in a profit, but in a loss. As to the mill, you know that just before the company was reconstructed we added five more stamps, making it a mill of 20 stamps. These have been fully employed during the whole of the year, and have crushed, in addition to the company's stone, 14,583 tons for the public, and the mill has not only covered the loss made on the minings, but has made a further profit, which, after deducting all the expenses, is sufficient to leave a net profit on the year's working of £1135 5s. You will notice in the accounts that the dividends on the preference shares up to December 31, amount to £757 19s. 8d. These dividends, as you know, the directors have paid because they have power, under the articles, to pay interim dividends, so long as they are satisfied that the company is earning them. You see by the accounts that they have been earned, and that there is a balance remaining of £377 5s. 4d., carried forward to the next year's account, which, of itself, will be sufficient to pay half a year's interest on the preference shares falling due on the 30th of next month. Now, the great inducement for the directors to recommend the reconstruction of this company to the shareholders was the success with which some of the mines in the immediate neighbourhood were working, and those mines have continued since that time to improve. The New Queen, the Brilliant Block, the Brilliant Extended, and one or two others, which are in the vicinity of the property, and where, so far as one can judge, the ore bodies are trending towards our property, have been producing ore in large quantities, and of very good quality. The Brilliant Block is worth about 1½ ounce to the ton, and I think the New Queen is about the same. In the New Queen Mine they think that they have cut the Brilliant reef. I am not sure whether they have or not, but they fancy one of the reefs they are working on is the Brilliant. All I can say is, that the success of these adjoining properties is a great encouragement for us to prosecute the work, for which principally the reconstruction of this company was carried out. Everything, so far as we have gone, not only justifies the views and advice of the managing director, to whom we are under considerable obligations—Mr. Plant—for so ably managing the company's affairs in Charters Towers, but leads us to expect that at no distant date we shall meet with the success which I think we deserve. Mr. MacDonald is here, and, perhaps, would like to tell you something more of the workings which are going on in the adjoining properties. You see Mr. Plant writes in a very hopeful strain. He says:—"At the mine, although the working on the old Queen reef shows a loss, I am still sanguine from present appearances that we shall make a profit during the coming year. At the new straight or No. 3 shaft we should cut three reefs before the end of the year—the Marshall's Queen, Queen Cross, and the Victory—which I sincerely trust will be the means of placing the company at an early date on the dividend-paying list." As regards Marshall's Queen we did go through a reef of some sort at about 280 feet from the surface and the manager put in timbers at that point so that drifts can be run along the vein at any moment, as he, Mr. Plant, now telegraphs that another reef has been cut. This, no doubt, will be the Queen Cross reef, and I think we may offer some compliment to the gentleman whom we employed to make the survey of the adjoining mine as to the accuracy of his surveys and his anticipations. I think in the circular which we sent out he said we might expect to cut the Queen Cross reef at a depth of 570 feet. As a matter of fact, we have cut it somewhere between that depth and the 620, now reached which is a very close approximation, and if he is only as accurate in his views as to the depth at which we shall cut the Victory and the Brilliant, I think the money which we are spending on the No. 3 shaft will be remunerative. Our manager suggested that at the proper time we should sink our No. 2 vertical shaft also. I agree with him that

this should be done [illegible] I think our first object is to see that our No. 3 shaft is carried down to the deep ground, where we have always talked of extending it, and where we may reasonably hope to meet with something very good. The Chairman concluded by moving the adoption of the report and accounts.

Mr. J. MACDONALD, in seconding the motion, said he looked upon the cablegram just received, referring to the cutting of a formation 4 feet thick at a depth of 620 feet, as a very important one, and upon the whole as a favourable communication. Of course, as the Chairman had remarked, it would have been better if they had cut a large reef with rich stone in it, but they must know that in sinking a shaft to cut a reef it was frequently the case that the formation cut was not the reef proper. In their case they would not be able to tell the value of the discovery until they had driven upon it. Whether the managing director would drive upon it at once, or whether he would continue the sinking of the shaft, they were not yet in a position to state; but most probably he would drive on the reef within the next few weeks. The sinking of the shaft had been remarkably rapid, and had the manager not met with what were called "soapy heads" in one part of the shaft, which necessitated frequent timbering, the work would have been a record for rapid sinking in Charters Towers. There seemed to be no question of the management being able to cut the Brilliant reef if they were to sink the No. 2 shaft. It was certain that the Brilliant reef was now being worked in the New Queen, and it was also certain that it was being worked in the Brilliant and St. George. There could hardly be any doubt as to the existence of the reef in the Bonnie Dundee. (Applause.)

The motion for the adoption of the report was then put and carried unanimously.

Messrs. Monkhouse, Goddard, and Co, having been appointed auditors, the proceedings terminated with a hearty vote of thanks to the Chairman.

THE METROPOLITAN COAL COMPANY OF SYDNEY, LIMITED.

A substantial profit despite the depression—The company's business well maintained.

The seventh annual general meeting of the shareholders of the Metropolitan Coal Company of Sydney (Limited) was held on Thursday, at the Cannon-street Hotel, the chair being occupied by the Right Hon. Sir JAMES FERGUSSON, Bart., M.P.

The SECRETARY (Mr. G. Carnaby Harrower, C.A.) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report, reminded the shareholders that at the last annual meeting he had deplored the year of depression which had preceded, notwithstanding which they had made a substantial increase on the output, and had made a profit which, if small, was still substantial. In characterising the previous year as a year of great depression, he had had little idea of the disastrous year which at that time was commencing. As they were all aware, the past year had been for New South Wales a year of unparalelled disaster. To gauge the extent of this depression, it was necessary to remember that companies had suspended payment with an aggregate of 97 millions in assets. From that they could imagine what the disaster had been which had affected the colony. It was not, therefore, surprising that in a year of such grave commercial depression, the mining industry in Australia had been but little remunerative. Nevertheless, they would see from the report that they had made a substantial increase in the receipts, and that there had been an increase in the sale of coal amounting very nearly to 40,000 tons. The increase had come wholly in the former part of the year. In the second six months the full force of the depression had been felt, while the trade of the company was also damaged by the accidental blowing up of one of their ships, loaded with coal, in Sydney Harbour. This accident had created a certain prejudice against the company's coal, which, while it had absolutely no foundation in fact, was made the most of by some of their rivals. The accident was one which might have happened to any company's coal. Indeed, just about the same time a similar accident occurred to a steamer near the Isle of Wight. Despite this, however, the company had retained the bulk of its custom, and the contract had been renewed with Her Majesty's Navy for the next year. In addition to that they had a new contract with the passenger steamers, and the railway contract would continue for two years more. Consequently the very moderate statements made in the report as to the favour in which the coal of the company was received in the colony were made upon full justification, and with the revival of commercial prosperity they might confidently anticipate an increased sale. Shareholders were, no doubt, aware of the fault which had existed in the mine, which it had been feared might possibly cut them off from the greater part of the field. This wall of rock, however, had now been pierced, and they had access to the whole of the field. It was a matter of satisfaction to them to know they had only made one bad debt, although that was rather a large one. This, however, was partly secured by a bill of sale. The company had every reason to be satisfied with the plant. There was no doubt that it was the best plant erected in Australia. In fact, they had every reason to be very glad that they had sent the best possible machinery from England, so that they were fully able to cope with any increased demand. The Sydney directors were somewhat doubtful as to the necessity of writing off anything for depreciation; but the London board had thought it provident to write something off, and had fixed the sum at £3300. (Hear, hear.) With that reduction they had a surplus of £2476, out of which they were glad to make the first payment to the long suffering shareholders.

Mr. H. M. SIMONS seconded the motion for the adoption of the report.

Mr. FERGUSSON said that there was a good deal that was hopeful in the report; for if such a fair result had been achieved in a year of depression they might judge that in a more favourable year there would be a much more satisfactory record for the shareholders. It was his conviction that the Colonial board ought to be abolished, and an agent appointed, who would have a percentage upon the profits realised by the business transacted. He thought, too, that the working capital of the company was insufficient.

The Rev. W. GREEN coincided in this view.

The CHAIRMAN, in reply, admitted that the Sydney board had made mistakes, and that there would have been more had not the London board interfered. Since then, however, two members of the Sydney board had been changed, and the new members were men of practical ability, and no more such mistakes were likely to occur. One of the gentlemen on the board was one of the original promoters of the concern, and a very hard bargain was made with him. Mr. MacMillan, too, was an influential man in the colony, and had been instrumental in getting the company some good orders, so that they could certainly not afford to lose their best friends. The directors entirely agreed that the company was suffering from a deficiency of working capital, and the finances were considerably hampered by that deficiency.

The motion for the adoption of the report was then put and carried.

Mr. PARTON (the company's engineer), who is shortly about to return to the colony, laid some particulars before the meeting as to the mine. They had, he said, the best plant in the colony, could make the largest output, and were in a position to put coal on the market more cheaply than any other colliery south of Sydney. The company had a splendid mine of coal. It was, of course, gaseous, but it was worked very well, and the ventilation was of the highest description. They were all hoping for a turn in the tide of prosperity, and when it came they would certainly participate in it more quickly than other companies who were not so favourably situated in regard to plant and capability for cheap plant.

The retiring directors Mr. Clarence Smith M.P of the London board, and Mr. Doddemead, of the Sydney board, having been re-elected, the proceedings terminated with a hearty vote of thanks to the Chairman.

THE OCEANA TRANSVAAL LAND COMPANY, LIMITED.

The scheme approved.—Plans for the future.

An extraordinary general meeting of this company was held yesterday, at Cannon-street Hotel, to consider the acquisition by the company of the assets and undertaking of the Central African and Zoutpansberg Exploration Company (Limited), and of certain shares in the Katanga Company, and to pass a resolution adopting the conditional agreements which had been arrived at between the company and the Exploration Company, and the company and Mr. Morton Lambert.—Mr. H. PASTEUR presided.

The SECRETARY (Mr. S. C. Fox) read the notice convening the meeting.

The CHAIRMAN explained at considerable length the nature of the proposals, and the reasons which had induced the board to recommend the scheme to the shareholders. An opportunity had now, he said, presented itself, which would enable them, before it was too late, to obtain such a share in the territories, and such an influence in their management and development in Central Africa, as would make the Oceana Company one of the most important in that part of the world. Respecting the assets comprised in the undertaking he would enumerate them as follows:—1. In the Transvaal the Murchison Crown Reef and other mining claims and properties in Zoutspanberg and Klerksdorp.—2. The interest in the Companhia da Zambesia. The territory comprised by the latter company covered an area of some 56,000 square miles, lately increased by another 20,000 square miles, owing to a further concession, granted by the Portuguese Government a few weeks ago, with largely extended rights. This company had also a grant of the Prazos or Crown lands under the concession, with the right to convert the remainder into Crown lands, and hold them, and the extended concession possessed also great actual and tactical advantages inasmuch as it covered the mouth of the Zambesia and the port of Quilimane, and the percentage on the customs receipts of those inlets into the interior.—3. In Nyassaland, at Chiromo, the Central African Company possessed a very good property, which was likely to become the site of an important township. The state extended for a long distance along the banks of the River Shiré, in a district of great richness and fertility of soil.—4 Concessions from native chieftans in Nyassaland in the British sphere of influence, lying between the Compana da Zambesia's territory and the River Shiré, which, by agreement with the British Government, would most probably take the shape of a lease of that large tract of land, which would be suitable for the cultivation of sugar, rice, and other tropical products. —5. An interest of about half in the African International Flotilla and Transport Company. This company, formed mainly by the indomitable energy and perseverence of Captain Cameron, was now doing the transport of passengers and goods with its three steamers, its whale-boats and depôts from Tete on the Zambesi and from the Murchison Falls on the Shiré to the port of Chinde on the coast, and the company was now showing satisfactory returns. It was now offered more freight than it could carry, but this was only the first step towards the establishment of a trade route by the way of the great lakes, Nyassa and Tanganyika, with 850 miles of inland navigation, and the 350 miles of the Shiré and the Zambesi, down to the sea. He need scarcely point out what the opening of such a route to the heart of the rich resources of the Congo and the great lakes would mean towards the development of trade with that part of the world, whose products (with the exception of ivory and indiarubber) were almost entirely debarred from being exported, owing to the prohibitive cost of the present mode of transport by native carriers.—6. The Central African Company also possessed about 1-12 interest, represented by 500 privileged and 1000 ordinary shares, in the Katanga Company. This company was formed in Brussels in April, 1891, with a capital of £120,000, divided into 6,000 privileged shares of £20, entitled to an interest of 6 per cent. of the net profits of the company, and 18,000 ordinary shares of nominal value, entitled to 75 per cent. of the net profits. Of these, 600 fully-paid privileged and 1800 ordinary shares were given to the Congo Free State, and 1080 ordinary shares to the Congo Company for commerce and industry. The object of the company was the exploration of the territories conceded by the Congo Free State, extending for some 160,000 square miles along the western shores of Lake Tanganyik to the boundary of the British sphere of influence on the South. The State conceded to the company the very good property of one-third of that vast region, as well as a concession for 99 years of the exploitation for mining of the remainder two-thirds belonging to the State. In return for this the Katanga Company had to place within three years of its formation two steamers on the upper reaches of the Congo, or on one of the lakes, and it had also to form no fewer than three stations for sufficient police to protect the steamers and buildings. The Central African Company further owned a small interest in the Mozambique Company, with which company the Oceana and Transvaal Land would be pretty sure to come in friendly accord, as it lay to the south of the Zambesi Company's territory, and its directorate and shareholders were in great measure the same as those of that company. It was unnecessary for him to detain the shareholders at the meeting with regard to the other properties held by the Central African Company, beyond mentioning that they comprised fully-paid shares in the Matabeleland Company, further land grants of value and about 1-16 interest in the Gaseitsides concessions lying to the south of Bechuanaland. The only liability of the Central African Company appeared to be one of £3000 on the partly-paid shares of the Katanga Company. It had practically no other debts or liabilities except the current expenses of management and up-keep which had been paid up to date. Now, the shareholders would undoubtedly ask why the directors recommended such a departure from the late lines of operation of the company—(hear, hear)—to which he would reply that the Oceana Company's operations were necessarily confined to the development of land in the Transvaal, which was a slow process. However valuable a great deal of the land undoubtedly was, until railways were built which would give easy access to prospectors, settlers, and farmers they could not expect to see the more distant farms increase in value to a point which would give the profits which the shareholders had a right to expect, and which they would undoubtedly obtain in time. They had an ample working capital in hand—sufficient for all requirements for some years to come, and for the upkeep and gradual development of the properties. But he took it that they would hardly be satisfied to wait another two or three years, or even more, except in the event of fresh discoveries or developments being made, before getting some return for their investments. The investments which the directors had made, the exchange of views with those who were associated with those companies, and whose co-operation they had secured, and the very influential support which the union would give rise to, not only in London, but in some of the most important financial centres on the continent, had led the directorate to form a very favourable opinion of the scheme which they had no hesitation in recommending to the shareholders' adoption as one likely to strengthen materially the Oceana Company, and to ensure, probably, in a much nearer future than could otherwise reasonably be expected, from their operations in the Transvaal Land, results such as shareholders might reasonably hope to obtain. From whatever point of view they looked at this business its advantages appeared clear and obvious. The purchase would give for a relatively small number of shares an extended field of operations of fully 120,000 square miles of country, a great portion of which was, owing to the navigability of the River Zambesi and its confluents, by Nature even more accessible than the Transvaal. They would profit by the increased value which the rapid development going on all round would bring, and also in connection with the development of these countries. In conclusion, he moved:—

That the capital of the Oceana Transvaal Land Company (Limited) be increased to £400,000 by the creation of 20,000 new shares of £1 each.

That the name of the company be changed to The Oceana Company (Limited).

That the Articles of Association be altered by substituting the word "eight," instead of the word "seven" at the end of Clause 65.

Mr. CONYBEARE, M.P., seconded the resolutions, reminding the shareholders that the territory the company were proposing to take over was not unknown. He believed he was correct in stating that when the Oceana Transvaal Land Company was first formed, and when it took over its immense properties far less was known about the characteristics of its territories than was now known of the territories to which he had referred. There was in the possession of the company a very elaborate map, prepared from the personal explorations of one of the company's representatives, which gave much fuller information of the territory than was open to the public. To those who had studied the matter it was known that in the tropical portions of Central Africa there was a vast wealth which only needed the application of capital for its development. He would particularly mention the huge coal field upon the banks of the Zambesi, which they would be able to work very cheaply, on account of its proximity to the water way, and the products of which they would be able to supply at low rates to the ocean shipping.

After an exceedingly brief discussion, the resolutions were put and carried without opposition, and the meeting closed with a hearty vote of thanks to the Chairman.

At the same hour an extraordinary general meeting of the Central African and Zoutpansberg Exploration Company was held at Winchester House, the chair being occupied by Mr. F. A. GILLAN.

On the motion of Mr. F. D. C. STRETTELL, the following resolution was carried:—

That the directors be and are hereby authorised to sell and transfer the whole undertaking of this company to the Oceana Transvaal Land Company (Limited), in consideration of 100,000 shares of £1 each, fully paid up in the Oceana Company (Limited), to be allotted to this company upon the terms of the draft agreement produced to and approved by this meeting; and that the directors be and they are hereby authorised in the name and on behalf of this company to execute and carry into effect an agreement in the terms of such draft, subject to such modifications (if any) therein as they may before or after execution thereof approve.

GOLD FIELDS OF MYSORE.—An extraordinary general meeting of the Gold Fields of Mysore was held on Wednesday, at the offices, 6, Queen-street-place, Lord Ribblesdale presiding, for the purpose of confirming resolutions passed at a previous meeting, authorising the increase of the capital to £275,000, by the creation of 55,000 new shares of £1 each, and directing that these shares should be offered to the existing shareholders in the proportion of one new share for every four shares now held by them. Lord Ribblesdale formally moved the confirmation of the resolutions, which was seconded by General Beresford, and carried unanimously.—Mr. John Taylor said he had been asked by a shareholder to bring a small matter under the notice of the meeting. That gentleman had written to him in the following terms:—"Will Mr. Taylor at to-morrow's meeting inform the shareholders whether the trial shaft No. 2, reported in the last fortnight's Ooregum report, has the Oriental lode? It is 4 feet wide, worth nearly 2 ounces to the ton, and if it be the Oriental lode this discovery should add very much to the value of the adjoining land between the Ooregum and Mysore acquisitions." The distance between No. 2 shaft and their workings on the Golconda Block on the Oriental lode was 6600 feet, upwards of a mile, and, therefore, it was utterly impossible for him or anyone else to speak with certainty as to whether it was the same reef or not. There were several reefs in the Golconda Block, and there was a doubt about the ore struck. But there was no doubt whatever that it was tending in the direction of the shaft on the Oriental property, and upon that account they must look at it with considerable interest. He might call attention to the last prospecting report they had received. No doubt they had read it, and would have noticed that it was by far the best they had ever had of the prospecting work on the West Balaghat Block. The lode there was opening up splendidly in several places at the shallow depth of 100 feet.—A shareholder enquired whether they had received any information as to how the reef was underlaying the new trial shaft in the Ooregum.—Mr. Taylor replied that they had no transverse sections, but they were told that the reef was underlaying sharply to the west.—The proceedings then terminated.

KANGARILLA SILVER MINES (LIMITED).—The adjourned extraordinary general meeting of the Kangarilla Silver Mines (Limited) was held on Tuesday, at Cannon-street Hotel, Mr. H H. Thompson (Chairmain) presiding. The Chairman said that when the shareholders met on the last occasion there was not a sufficient number of priority shares subscribed to warrant them in passing the resolutions contained in the circular of April 27. They had then only one other course before them, and that was to propose a resolution for the winding up of the company. It was, however, decided, before doing that, to adjourn the meeting, so that they might have an opportunity of soliciting further contributions and trying their best to get the £8000 which they required. A little over £6400 had been promised since then, and unless they got the remaining £1600 the company must go into liquidation, and the shareholders would lose every penny they had put in the company, while the property would be taken over by the debenture holders. If only one-half of the £1600 could be obtained here the directors had reason to hope that the other half could be obtained in Glasgow. The Chairman then moved the resolutions providing for the issue of 12,000 shares of the nominal value of the £1 each.—Mr. O. H. Davis seconded the resolutions, and they were unanimously carried.

COLLIERY EXPLOSION NEAR CASTLEFORD.—Shortly after midday on Saturday a serious explosion took place in the Silkstone seam of the "Albert," or "Star" pit, one of Messrs. Bower's four collieries, situate at Bowers Allerton, near Castleford. At the time there would be 200 men and boys in the pit, but fortunately the explosion was confined to one district—along the east board, Mr. James and Mr. William Blackburn, the managers, quickly descended, and the workers were got out with the exception of five, who had received the full force of the explosion, and were terribly burnt. Doctors Carr, Wilkinson, and Gains, of Kippax, and Taylor, of Methley, were quickly on the scene, and rendered what aid they could to the injured, who were brought out in about half an hour. The ambulance conveyed them home. The pit is worked with safety lamps, and there has been no explosion in it for a great number of years. An old collier ascribes the accident to a meeting of gas and foul air, which he says produces an effect "like lightening."

FORTHCOMING MEETINGS.

*** We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings—whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned—in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.*

Name of Company.	Date.	Nature of Meeting.	Place.	Time.
Van Ryn Estates	May 28	General	Winchester Ho.	12 noon.
South African Gold Trust	May 28	General	Cannon-street	11.30 a.m.
Bengal and N.W. Rail. Co.	May 29	General	Cannon-street	12 noon.
Devon Great Consols	May 30	General	Winchester Ho.	12 noon.
Orient Trading Corporation	May 31	General	Winchester Ho.	3.0 p.m.
West Kitty	May 31	General	37, Walbrook	12 noon.
South African Land Mort. &c.	June 1	General	Cannon-street	2.0 p.m.

THE EDITOR'S LETTER BOX.

*** We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.*

THE METALLURGY OF LEAD.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—I have to thank Mr. Warwick for his able contribution to the discussion of this intricate subject, as such letters as his, showing an intimate knowledge of our present information of the subject, enable me in reply to make clear the points which, while seeming absolutely simple and clear to me, are yet new and strange to those who have not experimented in the field.

As to Percy's opinion of the existence of sub-sulphides of lead, I only find one experiment described by him—namely, adding 2347 grains of sulphide to 30,840 grains of metallic lead, and showing that separation took place, and he doubts, as I said, the existence of sub-sulphides of lead. But that Percy did not think that he had disproved the existence of subsulphides of lead is shown from his saying on page 239—"In metallurgical books which treat of lead smelting in the reverberatory furnace, oxy-sulphide and sub-sulphide of lead are made to play an important part. I have ignored both, first because I have not met with satisfactory proof of the generation of such a compound as oxy-sulphide of lead in the furnace, and secondly, the formation of sub-sulphide of lead has not been certainly established, and if it had been its reduction by means of oxidised compounds of lead would be exactly analagous to that of the mono-sulphide." Clearly Percy did not think that he had disproved its existence. My experiments go to strengthen the opinion Dr. Percy had formed, and the fractionation affords in my opinion a real disproof of the existence of these compounds. Although Percy does mention possible reactions other than $PbS + PbSO_4 = 2Pb + 2SO_2$ when treating of chemical reactions in the earlier part of his work, it will be seen on reading through the whole work that he relies on that one equation for the production of lead.

Now, I have abundantly shown that such reaction does not exist, and I would ask Mr. Warwick to repeat my experiments, or any others he can devise, and tell us plainly if he has succeeded in getting results to agree with theory. Even if he grinds the material to extreme fineness in an agate mortar, and intimately mixes them, and then causes them to react at the lowest possible temperature, he will find no such reaction, but it will take this course:—

$$\underbrace{12\ PbS + 12\ PbSO_4}_{\text{Hard lead.}} = \underbrace{15\ Pb + 2\ PbS + 5\ PbO + PbS.\ PbO + 21\ SO_2}_{\text{Dark litharge.}}$$

so that instead of obtaining 76·3 per cent. of lead he will get a yield of 47·7, or thereby. Now, the reason of this is that whenever metallic lead is formed a secondary reaction between this lead and the sulphate sets in according to the equation (which also is not quite so simple as stated)—

$$PbSO_4 + Pb = 2\ PbO + SO_2$$

resulting in the formation of litharge, and removing some of the sulphate from the reaction. At the same time the lead formed takes up a little sulphide as shown, and the PbO combines with some, forming a slag.

Then, again, Percy says that the protoxide of lead aids in the reduction of the sulphide. Now, at the temperature of the lead furnace protoxide does not reduce the sulphide, but combines with it, forming PbS. PbO. Percy did not know of this compound, yet he practically proves its existence by his analyses given on page 235, and in his remarks on these analyses he says that "much more lead is oxidised than suffices for the reduction of the sulphide, which at the end of the operation almost totally disappears. What seems remarkable is that in product No. II. (obtained after 4½ hours roasting), which had been calcined at a higher temperature or roasted for some time after the completion of the first stage (to which the calcination is restricted), and had been subsequently melted down, so large a porportion of sulphide and oxidised compounds of lead should co-exist." That is why I have stated that litharge is not formed in any quantity; the compound is not litharge, but PbS PbO, and this compound greedily absorbs oxygen, and its PbS is oxidised to $PbSO_4$. Clearly Percy saw that the PbO was not the real cause of the reduction of the PbS, as the two co-exist in the furnace without reacting. Now I say, and it can easily be proved, that all, or nearly all, the PbO in the furnace goes to form slag, and not to reduce the PbS.

Mr. Warwick is wrong in saying that I have not attempted to perform my laboratory experiments according to the conditions in the reverberatory furnace, and if he reads my paper again he will find that I state that I have imitated the reverberatory smelting in the laboratory, and even examined the result obtained when air is excluded, so as to see what part it plays at the moment of obtaining the lead.

As to the real existence of the compound PbS_2O_2, I think I have experimentally demonstrated that every molecule of SO_2 set free combines with and renders volatile a molecule of PbS. To state a parallel case: If we heat a weighed quantity of phosphorous in a tube and pass oxygen, and find that every molecule (P_2) of phosphorous takes five atoms of oxygen for its volatilisation, and that this proportion is constant, we conclude that a compound P_2O_5 has been found. If we could not collect the P_2O_5, but could devise many reactions, of which this relation of P to O was always the same, we would conclude that a compound of that composition was formed. Now I have clearly proved that when SO_2 and PbS are brought into contact at high temperatures, every molecule of SO_2 carries off exactly one molecule of PbS, neither more nor less, over a large range of temperature, and as I devised a large number of reactions in which these relations occurred, the proof of the existence of this molecular compound is fairly strong.

Mr. Warwick shows that he has clearly grasped the difficulty and complexity of these lead reactions by his argument, in which he discusses my method of conducting the reactions, but he is quite wrong in his conclusions when he says he distrusts my results because I added the substances (in some cases) gradually. There are always secondary reactions between the acting substances and the gradually forming products of the reaction, as I have shown at the commencement of this letter, where the substances were ultimately mixed and raised to the reacting temperature as quickly as possible. I employed the methods described in order to obtain some insight into the mechanism of the reaction. But one good experiment is worth acres of discussion, and, perhaps, Mr. Warwick will kindly repeat some of my work and report as to the results he obtains. My test of the volatility in nitrogen was done with all precautions to prevent cooling, and, in fact, as most of these experiments were done just over the melting point of PbS, any cooling was inadmissible as solidification would have taken place. The air was passed so slowly that no appreciable rise of temperature took place on account of oxidation. Mr. Warwick may not accept my experiments, but they are statements of fact which must stand till they are experimentally disproved.

I did not say that Percy's work was inaccurate. He stated explicitly that the chemistry of lead smelting was unexplained, and I have endeavoured to throw some additional light upon it. If weighing and analyses of products can prove anything, then I think Mr. Warwick is scarcely justified in saying that I have not proved the correctness of my equations.

My explanation of the chemistry of lead smelting agrees with observed facts, and shows the value of lowering the temperature at a certain point, a proceeding quite inexplicable upon any theory of inter-action of PbS with $PbSO_4$.

In conclusion, Mr. Warwick will easily see that every reaction is in reality a series of reactions, in which all the products of decompositions take part in increasing degree as they increase in the crucible, so that an elaborate paper could be written on each reaction, and the result is modified by the temperature, the fineness of the mixture, and the method of addition of the substances. Even if the substances are placed in the crucible, one on the top of the other, without mixing, the result obtained will be different from that obtained from the inter-action of a homogeneous mixture. I hope in future papers to take up each reaction, and thoroughly map out all the paths which it may be made to pursue; but such elaborate work requires much time.

I have answered much of "N.N.N.'s" letter in my reply to Mr. Warwick, but would add:—

(1) I did not claim that my experiments are the first that have been made on the sub-sulphides of lead.

(2) I do not state that the specific gravity of sulphide of lead in water is any fixed quantity, the whole object of my work being to show that oxidation and lowering of the specific gravity takes place on boiling PbS with water, so that the specific gravity as determined in water may be anything according to the fineness of grinding, and the length of time during which it is boiled.

(3) My new method of analysis was not devised for lead ores, but for pure combinations of lead and sulphur, so I cannot explain how my new method applies to complex mixtures of other metals.

(4) I have shown that neither of Percy's equations have any existence, and if "N.N.N." will kindly repeat my experiments he will soon convince himself that what I have stated is true.

(5 and 6) "N.N.N." does not catch the real meaning of what I wrote. When lead ore is smelted the first operation (reverberatory furnace) yields about 66 per cent. of lead (from pure ores), but fume and slag are also formed, and these are smelted on the ore hearth, yielding, say, 8 per cent. additional, giving 74 per cent. from the whole operations, as stated in the Government Statistics. But Percy and I were discussing only the first or reverberatory treatment, although I have, in a later part of my paper, touched on the others. There is, therefore, no discrepency between Percy, the Government, and myself.

I shall have great pleasure in writing a special paper on fume condensation, showing how complete condensation may be obtained by very simple means.

In conclusion, the first demonstration I am likely to give will be the placing of the products of this new process on the market, but I am quite willing to go over any of the reactions with "N. N. N." in my laboratory if he will kindly communicate with me, and provided that he will publish the results in your valuable Journal, whether or not they corroborate my published statements, as I have no time to devote to experiments designed to influence the private opinion of only one individual.

Faithfully yours, J. B. HANNAY.

Whitehall Club, S.W., May 21, 1894.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—With reference to the correspondence going on upon this subject, I venture to think that Mr. Hannay's paper shows a large amount of careful and original investigation, at the same time considering the complex changeable nature of the materials the lead smelter has to handle (under conditions of manipulation, themselves also so extremely variable, that they often materially affect the reactions taking place), it seems to me that any formulæ must of necessity be accepted as a tentative explanation of what takes place, subject to probable modification in a great many ways in actual practice.

There are generally two sides to every question, but this one, from a chemical point of view, bristles with points which I will not attempt to touch upon. At the same time Mr. Hannay will, I trust, forgive my friendly criticism of the process from a practical standpoint, as there are several matters connected with it I should like to have more fully explained and figured upon.

His proposed line of departure from ordinary practice and accepted ideas is certainly ingenious, but I confess I am at a loss to see in what respect "the new metallurgy of lead," as Mr. Hannay terms, it differs in the end it seeks to accomplish from the American modification of the well-known method of treating lead ores in "the ore hearth."

To quote H. O. Hofman ("The Metallurgy of Lead," p. 110)—"This process resembles the method of treatment in the reverberatory, with this difference—that oxidation and reduction go on simultaneously, the charge floating on a bath of lead."

"The lead oxide and sulphate, as soon as formed, react on the undecomposed sulphide, and the liberated lead trickles through the charge into the hearth bottom, overflowing into an outside kettle."

"It requires purer and higher grade ore than the reverberatory, and the charge must not be smaller than pea size, whilst nut size is desirable."

"If fine ore is treated, it must first be agglomerated in the reverberatory, or it would be blown away. It requires power and a blower, and owing to the large volatilisation of lead is not suitable for argentiferous ores."

"At Raibal the comparative loss with the ore hearth and reverberatory systems, working side by side on the same ore, was as 10·6 to 7·3 in 1888."

"The ordinary ore hearth cannot compete with the English or Silesian furnaces, either as regards capacity or cost, but it has this advantage over all reverberatories—that it can be started and stopped without much consumption of fuel, or loss of heat, and thus serves its purpose in extracting at intervals from small amounts of non-argentiferous ore, the major part of the lead."

The modification of the process to which I have alluded overcomes the principal disadvantage of the ordinary method, viz.: the loss of lead by volatilisation, and to quote H. O. Hofman again, page 124:—"This has been carried so far that in smelting lead ores the aim is not to produce as much metallic lead as possible, but to obtain large quantities of fume, which are condensed, purified, and sold in the market."

"This explains the use of a hot blast, and the position of the upper tuyeres in the slag-eye furnace (worked in connection with the ore hearth) in this process." "Its use permits of the treatment of large amounts of ore, and shows also why 50 per cent. of the ore charged is converted into metallic lead in the ore hearth."

The process has been introduced at the Globe Smelting and Refining Works at Denver, and promises well, the conversion of the lead fume into a marketable pigment comprising two operations.

1st. Collecting the dark ore-hearth-fume, "blue powder."

2nd. Refining the blue powder in the slag eye furnace, followed by cooling and collecting the resulting white paint (in the paint house, as it called), by what is known as the Lewis and Bartlett bag process.

For every pound of metallic lead about 1·6 lb. of paint are obtained. Its price in 1884 was $3·50 per 100 lbs. with pig lead at $3·35. If I am right in thinking that there is no great difference between the object this process aims at and Mr. Hannay's proposals, interest chiefly centres on any special features there may be in his projected plant and method of manipulation, and its relative cost as compared with the American system just described. Some years ago I saw a very efficient wet condenser used for the collection of arsenic fume at Swansea, and I should anticipate there would be little difficulty in this branch of the process, judging from the success attending the Lewis and Bartlett bag process and the fume-condensation as carried out at Emms, in Germany; it is merely a question of expense.

There is, however, I should imagine, a limit set by the market to the sale of white paint, and it would surely be an operation entailing considerable unnecessary extra cost to reduce a surplus quantity of this commodity back again to metallic lead.

If, however, Mr. Hannay can by his process produce white lead, and deal with any possible surplus, cheaper than smelters can obtain the metal direct by their old established ordinary methods, he is to be congratulated on having initiated a remarkable revolution in metallurgical practice, for which he ought to receive credit and general thanks.

The work done by my old master and late friend, Dr. Percy, rests on too solid a foundation to be affected by the addition or absence of a prefix to his honoured name and world-wide reputation in Metallurgy, which those who study and follow the art (when other less distinguished men, perhaps, have passed away and been forgotten) will, I think, continue to recognise and appreciate.—I am, Sir, yours faithfully, A. G. CHARLETON.

May 19, 1894.

THE COLON GOLD MINES (COLOMBIA) AND THE WATER QUESTION.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—In April, 1893, a decree was issued by the Colombian Government relating to the furnishing of clean water by those owners of mines whose operations rendered existing supplies required for towns, agricultural establishments, manufactures, and industries in general unfit for use. According to that decree before a suspended mine can resume work, three arbitrators have to be appointed to estimate beforehand the quantity of clean water which shall be considered necessary for such establishments or estates, &c., in place of that rendered useless by the mines, and of these three arbitrators one is to be named by the owner of the mine, a second by the owner of the affected property, and a third (and, presumably, perfectly disinterested one) by the Alcalde representing the authorities. These arbitrators are required to give in their award within 60 days after taking possession—that is, after their appointment is approved—and the law then requires that the mine owner, before being permitted to work, shall lay on clean water in accordance with their decision.

Now there are two towns and some 18 landed properties on the Sabandija River, all more or less injuriously affected by the Colon Mine, which discharges into it. Should that mine be allowed to work without furnishing the necessary clean water supplies to them? And it may be interesting to shareholders to know how the management has, thus far, dealt with matters under the decree. Some seven months ago the little town of Guayabal was visited by a bevy of legal functionaries and representatives of the Colon Company, who, in consultation with the Alcalde of the place, were for some days in close and solemn conclave assembled—the Alcalde, by the way, being one of the landowners on the Sabandija River, to whom (amongst a few others) the company's representative had made previous overtures in the form of indemnification for injury done to his property when the mine should be got to work.

Out of these confabulations (kept so private that even the Suplente was only partially in the secret) a characteristic plan of campaign would appear to have been evolved for prosecuting the first case under the new decree against one of the owners who, having purchased the property, whose prescriptive water rights were attacked long before the Colon Company came into existence, had disobligingly insisted that the Colombian law should be complied with before the mine resumed work, and caused damage and depreciation, and upon whom, therefore, by a united and vigorous effort, a veritable mine of discomfiture was to be sprung. Singling him out of the eighteen proprietors, the method employed was to summon him at short notice (less than a day's) before the Alcalde, without a hint being given in the summons as to its object, and, taking him unawares, to rush through the formality of appointing the necessary arbitrators in such a manner as to ensure that two at least out of the three, —namely, the one selected by the superintendent of the mine, and the one named by the Alcalde—were persons directly associated with, and materially interested in, alluvial hydraulic gold mining, thus securing a sympathetic and hopeful majority, thereby diminishing, if not rendering altogether inoperative, the guarantees afforded by the decree that the law would be impartially applied when clean water would have to be furnished to the estate later on, and leaving the proprietor, in that case, practically without redress. It was early last September that Mr. Russell—who, as well as superintending Colon, is also manager of the Tolima, the vendor company of the "Alto" Mine, now known as, and forming the chief part of Colon—initiated proceedings under the new decree, and the expedients embodying the names of the two selected arbitrators having been cut and dried in readiness, the *coup* was administered by the Alcalde on the 12th. The superintendent's choice, it is needless to say, was that of a friendly professional hydraulic gold miner and late employee of the Colon Company; whilst the Alcalde's, which, on the part of the authorities, both law and fair play required to be most impartial, was an enthusiastic negotiator and prospector, as well as owner of alluvial gold mines; the estate owner, with a minimum of time allowed him for making his selection, naming a land owner from the adjoining district. At the very outset, and as a natural consequence of what was so very much *en evidence*, legal strife commenced, technical objection being taken to the Alcalde's qualification, under the circumstances, to act in the case, and to his nomination of an ostensibly disqualified arbitrator. The Alcalde, thereupon, recognising and frankly admitting that there existed reasons why he should "excuse himself" from holding office, at once resigned in favour of the Suplente, but he confirmed the appointment of his man before doing so, and the nomination of the arbitrator named by the Alcalde was, therefore, formally protested against as illegal and biassed. From that time to this it has been a matter of persistent contention between the representatives and lawyers of the company, on the one hand, and the estate owner, on the other, whether, firstly, the Alcalde, who thus "excused himself" and resigned, should be reinstated and continue to adjudicate in the case, apparently a matter of vital importance to the company; and, secondly, as to whether the arbitrator named by that official was competent to act. The first point, after considerable delay and the usual

protests, was decided by the Second Suplente in favour of the company's representatives, and to their entire satisfaction; and that decision was, therefore, sent for appeal before the Governor at Ibagué.

Upon again being installed, after his own previous admissions that he was disqualified from acting, the Alcalde, of course, promptly decided the second point himself by confirming, and with equal satisfaction, his own nominee as arbitrator, a proceeding which was once more protested against, and this point likewise goes for appeal before the Governor, the estate owner simply desiring that there should be absolute impartiality in the selection of disinterested arbitrators who, upon the merits, will decide upon the clean water necessary for his property, as the decree prescribes. Vague and almost farcical as these proceedings may appear, as when the requirements of the estate *are* estimated, no one knows where the clean water is to come from, the Sabandija being the only supply, their object and importance are nevertheless sufficiently obvious; and especially so when it is known that after the Colon Company had constructed an aqueduct over two leagues in length for furnishing Guayatal with clean water, the supply delivered at the Fountain in the Plaza was found, subsequently, to be unfit for domestic use, and for some months has been stopped altogether, whilst portions of the ditch have actually been filled up again by Mr. Russell's orders, because of the damage done by it to contiguous property during the rains.

After the question of the appointment of an eligible acting Alcalde is determined, there comes that of the eligibility of the arbitrators, and when that is decided after the appeal to the Governor is heard, then comes the practical application of the law by the furnishing (?) of clean water to the estate referred to. After that there are the remaining 17 landed properties on the Sabandija to be separately and individually dealt with, in accordance with the plan propounded to the July meeting of last year by Mr. Russell, viz.: "to bring in force the new Decree" (which the superintendent claims, *vide* his Colon report, to have secured from the President)—"that is, to summon each estate owner, who does not see his way to an amicable settlement, separately before the Alcalde of Guayatal, and demand the nomination of arbitrators, and follow up the case in conformity with the decree." Mr. Russell has been "following up" the maiden case under this decree over seven months, and I have endeavoured to explain to what uses it has been subjected, and how it has "worked" thus far. Am I right in surmising that the superintendent may have been, after all, unwittingly hoist by his own petard? For with regard to the future, and should they not entirely "see their way to an amicable settlement" (*vide* report), time will only show whether or not, at the present and past rate of progress, the last of the 17 landowners remaining to be proceeded against, will live long enough to be summoned before the Alcalde of Guayatal, in conformity with Mr. Russell's now famous decree. It may be mentioned that over three years ago the estate owners referred to voluntarily offered to accept the same "amicable" 5 per cent. basis of indemnity as Mr. Russell had himself proposed in regard to the next adjoining property on the Sabandija. That offer (once again repeated) was rejected, being subsequently followed, and preferably, by the proceedings I have described.—I am, Sir, &c.,

EDWARD GLEDHILL.

Carolina Hacienda, Honda, Republic of Colombia.

P.S.—Since the above was written advices have been received in Guayatal that the Governor has decided the appeal in favour of the estate owners, quashing absolutely the irregular proceedings of the local authorities respecting the Colon Mine.—E. G.

April 11th, 1894.

NEW RIETFONTEIN.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Writing with a practical knowledge of mining, I have read with much amusement, tinged with a large amount of contempt, the report on the above property in the *South African Financial Record*, of April 28. It certainly is the weakest and most lame attempt at bolstering up a dying or what I consider a dead concern that ever was published.

During March, Nos. 2, 4, and 7 shafts have been sunk to various depths, but with what result is not stated. Crosscutting has been commenced at No. 7 shaft; this, it is argued, is going to overcome the temporary strain; but how? What do they expect to find? The missing reef, no doubt. I am afraid that nothing more will be found than what they are sinking in. But should the missing reef be found in this wonderful development energy (which, in good mining, should never have been necessary), will it keep the mill going?

When crosscutting in quartz mining something is being looked for, when it is found, it requires development before ore can be obtained for the mill. I am satisfied that what has been written from time to time about this mine is absolutely correct, and it must sooner or later close down for development; whether that development will prove anything is problematical. I personally doubt it.

Quoting from the *Financial Record* report, which I presume was meant as a favourable one, the following occurs:—"Despite the evident energy with which the works are being prosecuted, it is significant that exactly the same number of tons of ore were mined as were milled, while it is worthy of note that the duty per stamps per diem of the mill only reached 2·966 tons—a somewhat low return."

This extract speaks for itself, and should be sufficient to put shareholders on their guard. My advice is, and I don't give it unadvisedly, "Leave this mine severely alone, and if an unlucky holder, sell and cut your loss." Probably the manipulators of this show know more than I do, but I don't think so; anyway, suppose they do, I don't envy them their knowledge and possible profits, nor will any shareholder who takes my advice.—Yours, &c.,

KAFFIRS.

London, May 23, 1894.

THE SILVER QUESTION—"NO. 2."

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—For a long period the normal price of silver was 60d. per ounce. We will use this price as our datum line. Let there be an international agreement by the chief commercial nations to the effect that they will put an increased quantity of silver into their coins, equal to 12d. to every ounce, on said datum line. The present price of silver is 50 per cent. below that line, hence the requisite quantity for each ounce can now be obtained for 6d. As the work advanced the extra quantity of silver absorbed would cause its price to rise gradually until the same quantity would cost the 12d. named.

When all the nations in the compact were progressing with their new coinage, the quantity of silver required would cause it to advance concurrently as the work matured up to, say, 150d., or more, per ounce. After, the supply and demand would be more in parity. By such a course, silver would once more become a factor as one of the money metals of the world. These results would be obtained on its own merits, and not be any conflicting ratio between it and gold. Aluminium should be the alloy used instead of copper, which would conduce to the lightness and hardness of the new coins.—Yours very respectfully,

NANSCOWEN.

Cornwall, 24th May, 1894.

THE MINERALS OF NOVA SCOTIA.

By EDWIN GILPIN, A.M., LL.D., F.G.S.

THE following description of the mineral resources of Nova Scotia is not intended to give more than a brief outline, sufficient to show their extent, position, and variety. This province, forming the most easterly extension of the American Continent, south of the St. Lawrence, may for practical purposes be considered the point of America approaching nearest to Europe. It stands like a pier projecting into the Atlantic, and from its position seems marked to play an important part in the future of the Continent.

Were it even a barren and inhospitable land, its position would make it important as the future gateway of travel between Europe and the future centre of the Continent. When, in addition to its position, it is displayed as bordering on the richest fisheries in the world; as possessing an equable climate favourable to human longevity, and admitting of the most successful culture of the fruits, &c., of the temperate zone, and as abounding in coal and ores of iron, gold, and many other minerals, it may confidently challenge comparison with the most favoured of its neighbouring provinces and states. The minerals, which have hitherto received most attention, are coal, iron, gold, and gypsum; but manganese, antimony, copper, barytes, lead, clays, building stones, grindstones, &c., are important, although hitherto but partially developed sources of wealth.

Coal Fields.

The first to be noticed is the Sydney coal field on the east shore of Cape Breton. Its area of available coal is estimated at over 300 square miles. It contains 12 seams from 3 to 12 feet in thickness. The coals are highly bituminous, and adapted for coke and gas making. It is classified for steam purposes as superior to Newcastle, and nearly equal to the best Welsh steam coal. Some of the beds enjoy a special reputation for domestic coals. The following analysis will show the general character of these seams:

Moisture	1·260
Volatile combustible matter	35·514
Fixed carbon	59·411
Ash	4·115
Sulphur	1·000

Coal is also found at Loch Lomond, River Inhabitants, Port Hood, Mabou, and other points in Cape Breton, but as yet little attention has been paid to it. The Pictou coal field covers an area of about 35 square miles, and is noted for the unusual development of some of its beds. There are 16 seams known, from 3 to 34 feet in thickness. The coal is not as bituminous as that from the Sydney coal field, but is still a coking coal, except in the case of a few seams. The coal from this district is used at the iron furnaces at Londonderry and Ferrona, and has a good reputation for steam purposes.

The Cumberland coal field has not yet been explored over all its area, which is estimated at 300 square miles. Operations have been hitherto practically confined to Springhill and Joggins. At the former place there are seven seams, from 3 to 12 feet in thickness, three of which are extensively worked. The coal is similar in character to that from the Pictou district, and is largely used on the Grand Trunk, Canadian Pacific, and other railways. Coal is known in Colchester, Hants, and Antigonish counties, but no attention has yet been paid to it. The foregoing remarks show that there is a large supply of coal available in the province, and that the different qualities are suited for almost every domestic and industrial use.

The Annual Production

is steadily increasing, and is now in round numbers about two millions of tons per annum. The output is consumed locally, and in the neighbouring provinces; and a large proportion is sold in Quebec and the City of Montreal. Were facilities available for cheaper transportation into the Lakes, immense amounts of these coals could be sold west of Montreal, and were the duty levied on coal by the United States removed, large markets could be secured in the New England States. These deposits, situated on tide water, varied in quality, and of inexhaustible extent, are but waiting an opportunity for a fourfold development.

The Cape Breton coals are known as yielding from 9000 to 11,000 feet of gas per ton, of from 15 to 17 candle power; as coking coals to give from 55 to 62 per cent. of excellent furnace coke, comparing favourably with the typical Conelsville coke. Important as the foregoing qualifications of the Nova Scotia coals are for many purposes, it is, however, in connection with iron smelting that their future development promises to be most important locally.

The Iron Ores.

of this province, so far as they have been developed and tested, promise to be unusually large and varied. At present there are only four furnaces in operation, two of which, in Pictou County, have been but a few months in operation, and have already passed the experimental stage. The Londonderry furnaces have been running for a number of years, and yield an excellent product from a mixture of limonite and hematite. In the western portion of the province, there are important deposits of red hematites and magnetites at Tor Brook, Clementsport, and Nictaux. The Torbrook Mine in this district furnishes annually about 30,000 tons for the Londonderry furnaces.

On the opposite side of the Bay of Fundy, the Cobequid Mountains contain important bodies of limonite and carbonate ores, which have been worked for many years at Londonderry. The Cobequids continue to the eastward into Pictou County, and here the deposits consist of limonite and specular ores. In addition, the Clinton shales contain numerous beds of red hematite, some of which are 50 feet in thickness. There are also

Important Deposits of Limonite

and spathic ores in lower carboniferous strata. The iron contents of these ores run from 35 to nearly 70 per cent., some of the ores ranking as good Bessemer, while all are good furnace ores. In this county the ores are in close proximity to coal and fluxes, and every railway facility exists. The continuation of this ferriferous range reaches the Gulf of St. Lawrence at Arisaig. This locality has hitherto received little attention, but several beds of red hematites of good quality are known. These ores being close to shipping will probably be utilised for furnaces in Pictou and Cape Breton Counties.

In Guysboro several large deposits of specular ore have received a limited attention, and similar deposits occur in Richmond County. Upper Stewiacke, Grand Lake, Goshen, Selma, Pugwash, Brookfield, may be mentioned as points where important deposits are indicated. In Cape Breton the presence of numerous deposits has been known for some time, but no mining or development work of any extent has been done. At Whyhogomah, in Laurentian strata, are red hematite deposits, probably containing

Large Amounts of Ore.

Promising deposits are known at East Bay and George's River, Loch Lomond, Big Pond, Smith's Brook, Lake Ainslie, Lewis Mountain, may be mentioned as yielding iron ores. The scheme, now in contemplation, of erecting a blast furnace plant in the vicinity of the coal mines, would stimulate prospecting, and no doubt many more deposits would be found and proved of value.

The following analyses will serve to convey an idea of the composition of some of the Nova Scotia iron ores.

	Cape Breton.		Nova Scotia Proper.			
	Big Pond.	Whyhogomah.	Pictou. (Specular.)	Pictou. (Limonite.)	Londonderry. (Limonite.)	Torbrook. (Hematite.)
Metallic Iron	61·39	60·90	64·41	56·83	57·85	59·86
Silica	9·04	10·80	3·68	4·80	4·79	5·93
Phosphorus	tr:	tr:	—	—	—	—
Sulphur	tr:	tr:	·16	trace	·60	·11
Phosphoric acid	—	—	·08	·15	·18	—
Alumina	—	1·40	2·95	—	·56	3·14
Magnesia	1·22	1·64	0·46	—	·10	—
Lime	—	1·85	.41	·63	·15	2·16
Manganese	—	—	2·74	.20	·25	—
Water	1·53	—	—	—	10·71	—

Gold Fields.

The Nova Scotia gold fields have not yet attained a prominent position among the gold-producing countries of the world, but this fact is only a repetition of the common saying that distance lends enchantment to the view. Few people can bring themselves to believe that in an old settled country there are valuable deposits of gold; such mines, like those of diamonds, must exist, they think, only in desert and remote places. However, no small number of men who, have grasped the true state of affairs, have made themselves rich at gold mining in Nova Scotia. And year by year the profits increase through improved mining and milling methods. The Atlantic coast of Nova Scotia from Canso to Yarmouth is occupied by a series of very old rocks, whose age, certainly greater than the silurian, is still a subject of debate among geologists. These rocks, consisting of slates and quartzites, are broken through at numerous points by intrusions of granitic rocks, which have induced much local metamorphism. They have been folded, by a force acting at right angles to the general trend of the shore, into numerous plications, having a general east and west course. The folds have usually high dips, and the anticlinal crests, where cut off by denudation, show layers or veins of quartz, intercalated with the slates and quartzites. These quartz fillings occupy the spaces between the layers of rock formed by the compressing and elevating force, and are frequently auriferous.

These anticlinal crests are very numerous, and the veins in some of them have been worked for a long time. Recent experience has shown that

The Most Productive Veins

lie close to the course of the anticlinal, and that many veins producing gold do not come up on one side of the anticlinal axis and drop down again on the other side, but turn over and descend again without coming at all to daylight.

The veins vary in thickness from 3 inches to 12 feet, and their gold contents run in the worked veins from 4 dwts. to 20 ounces per ton. In the case of the richer veins the gold usually occurs in zones or bands of the veins, which have frequently a lenticular shape, and usually a decided dip to the east or to the west. In some veins, however, the gold occurs in irregular pockets, apparently following no fixed law of deposition. The veins carry, in addition to gold, iron, copper, zinc, and lead sulphides, and frequently show considerable percentages of arsenical pyrites. These minerals are not valuable as a source of supply of the metals they are composed of, but are sometimes saved in the mills to be treated a second time for the gold they contain.

Hitherto, mining on these veins has been carried to a limited depth only, the deepest shaft not having reached 700 feet, while the average depth does not exceed 200 feet. The veins being usually in firm rocks [with well-defined walls] are opened by shafts sunk on their dip. These shafts are sunk at short intervals, stopes are usually started direct from the shafts and carried underhand, and the hoisting done from the shaft nearest the ground being worked. This system works well enough in shallow mines and good ground, but it is being abandoned for more regular and systematic methods of development.

(To be continued.)

THE Broken Hill-Waukaringa syndicate's lode in the drive is improving wonderfully, every shot showing excellent prospects. The results obtained ranged up to 6 dwts. washed from half a bucket of loose ore, without crushing. Better prospects still are expected further on. Atkinson's reef, which is the last find, is also giving good prospects of gold. Things in general are going on very favourably, and quite a little township is springing up at Lovely Gully.

NEWS to hand from Brisbane announces the discovery of a stone, at a depth of 20 feet in the reef at the Lower Tarcoola claim, literally smothered in gold.

SOME samples of quartz just sent by Sir John Willoughby from the Dunraven Reef (40 claims) 100 miles from Buluwayo, belonging to Willoughby's Mashonaland Expedition Syndicate (Limited), have been assayed by Messrs. Johnson, Matthey and Company, with the following result: Gold 6 ounces 3 dwts., and silver 18 dwts. per ton of 2240 lbs. The samples were small, but were taken right across the reef, which is from 3 feet to 4 feet in width.

IT is stated that tin ore has been found near Lake Titicaca, in Bolivia. In some places the ore, which is said to be very pure, occurs in very small deposits, but others are claimed to be quite extensive.

A TELEGRAM from San Francisco, Cal., says that Major J. L. Rathbone, ex-Consul General to Paris, has received a cheque for $100,000 for his copper mine in Mexico. The mine was purchased by L. Gougheneim and Sons, owners of the great silver and lead smelting works at Monterey, Mexico, and Pueblo, Col. It is said that the Gougheneims intend to invest $1,000,000 in the scheme.

THE following are the gold statistics for the Bendigo and Ballarat district for the fortnight ended 12th inst.;—Bendigo: Total yield, 6000 ounces; dividends declared, £4600.—Ballarat: Total yield, 6895 ounces; dividends declared, £5075.

THE Victorian Mines Department received a telegram dated April 12 from the directors of the School of Mines at Bairnsdale, stating that 100 tons of quartz obtained from the Monte Christo Mine at Bullumwall, about 20 miles north of that town, had yielded 350 ounces of smelted gold, or 3½ ounces to the ton. The mine is situated near the direct road to Omeo.

THE *Johannesburg Star* says six assays taken from the main reef of the Meyer and Charlton have shown the almost incredible return of 75 ounces to the ton. The ore is said to be literally seamed with visible gold, and the width of the body not much less than a foot.

[Received too late for classification.]

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LONDON: MAY 26, 1894.

OLD FASHIONED CONCENTRATING MILLS.

THE great decline in the output of galena from the British Lead Mines is to some extent due, as we have recently pointed out in our summary of the mineral statistics of the United Kingdom to the old fashioned, costly, and ineffective machinery employed. The remains of the old lead dressing floors plentifully scattered on the Welsh hill-sides afford an interesting study of the former methods employed for concentration; and before proceeding to describe the new mills and perfected machinery, rendered necessary by competition, and the great fall in the price of lead, we will briefly describe the process as worked some 20 years ago in Wales. The ore coming from the mine was first of all tipped into stone kilns with a narrow opening at the bottom, from which it was raked on to a perforated iron plate, where it received a spray of water. The fine ore was washed through the plate and passed on to the trommels above the jiggers, and the coarse ore cleaned by the water was then broken up by hand hammers, and the rich pieces picked out of it by a gang of women. The remainder, broken down to the size of macadam, was then wheeled in a barrow to the crusher house. The crusher, a simple pair of Cornish rolls with heavy weighted levers, instead of the present rubber buffers, was coupled direct on to the main shaft of a large water-wheel about 40 feet in diameter. The rollers thus revolved at the same speed as the wheel, and underneath them was a sizing trommel which divided the crushed ore into two classes, one of which under, say, ½ inch stuff, went on to the jiggers, while the other was delivered into a raft or elevating wheel also fixed on to the main shaft of the water-wheel, and was so lifted back again and sent through the rolls for further reduction. The jiggers were usually placed in a house by themselves on a lower level than the crusher house, and were driven by a separate water-wheel in the better class of dressing floors, although we have known them to be driven off the main wheel, and so subjected to all its variations of speed. The jiggers were usually of three compartments, from the first of which galena was obtained, the second a mixed ore of blende was present, and the third blende, while the tailings were, as a rule, thrown away irrespective of their mineral contents, which, indeed, were unknown, as no assayer was kept. The mixed products, or poorer concentrates, were sometimes thrown away, or kept for re-crushing in the one and only pair of rolls which the mill contained. And lastly, we come to the slimes. All the water from the various machines was conducted to a settling tank, from the bottom of which the thickened slimes were drawn off and treated on flat or round buddles, over and over again, until the heads were rich enough for sale. The waste and cost of such a process is obvious, and although there are now one or two good mills in Wales, yet the bulk of them were of the primitive nature just indicated, cheap enough, perhaps, in erection, but far from economical in working. It will be surmised with reason that the tailings from such a mill would be worth re-treatment with modern machinery, and, in fact, at the moment of writing we hear of a spirited gentleman who has secured a heap of many thousands of tons of tailings from an old Cornish lead mine. He proposes to erect some of the modern concentrating appliances with a view to re-treating some 200 tons a day. The tailings contain 3½ per cent. of lead at present, and the proposed machinery will take out the three units and leave less than half a unit for waste, and this at a cost of a shilling per ton. The machines are, of course, automatic in their action, and after the ore has been shovelled in at one end it is untouched by hand until it is separated at the other into concentrates and waste.

We are aware that it is cheaper to treat tailings than crude ore, as all the cost of the rough crushing has been already incurred; but, taking this into consideration, we still think that many of our British lead mines would pay to work if only the proper and most modern machinery was used for milling the ore. We have spoken more particularly of the old style of lead mill in Wales, because we have had opportunities of personally inspecting many of these establishments. But, from the information given us, we feel sure that our description would equally serve for most of the dressing-floors of the kingdom; while we have only to refer to the returns of tin obtained from the stream tin works in Cornwall to be convinced that an equally wasteful and costly system prevails in that county in relation to the tin dressing-floors. As a feeble excuse for this waste it is argued that if perfect appliances were used at the mines for recovering all the tin, the streamers would no longer be able to earn a living. Such an argument is not worth answering, but we are met with the fact that as recently as 1890 it was estimated that the mines within one mile of Carn Brea threw away £69,206 worth of tin, in addition to that carried to the sea. Again, the Government returns for 1890-1891, relating to the mines whose waste waters flow into the Portreath River, show accurately that 33 per cent. of the total tin produced was obtained by streamers from the river. In other words, the mining companies, after going to the expense of mining and crushing the ore, threw away one-third of its metallic contents, of an annual value of over £10,000, which amount is recovered by the streamers, and goes into their pockets instead of into those of the shareholders of the companies. Surely these facts alone sufficiently account for the non-success of many Cornish mines, and furnish a powerful argument in favour of doing away with the old system, and adopting new and perfect machinery, which will recover all the valuable contents of the ore treated by its means. The ruins of old fashioned mills, such as we have described, are to be found on the hillsides of every mining district in the kingdom, in some cases accompanied by the gaunt arms of a water-wheel which has not been dismantled, but left to slowly rot away; in others by the more substantial remains of an engine house or chimney, while the fact that streamers are at work not only in the tin districts, but also in the lead retreating, and earning a livelihood from the heaps of tailings is sufficient evidence of the inefficiency of the machinery once employed. On a future occasion we hope to have an opportunity of describing the modern type of concentrating machinery as compared with the ancient, and giving some of the results obtained from the treatment of mixed and ordinary ores direct from the mine as well as of the re-treatment of tailings. Of this latter class of ore, we believe we are correct in stating that there are millions of tons lying abandoned with the mines from which they were obtained. We have no means at our disposal for ascertaining their metallic contents, but can safely say, that if they contain from 3 to 4 per cent. of metal, they can be re-treated to a profit by the aid of modern machinery.

THE GOLDEN AGE.

THE past, when viewed through long vistas of years, becomes bright with the glamour of Time. Time that lends dignity to an unsightly mound and luxuriance to a dung-hill. Historians, by the aid of imagination, which they in common with poets, company promoters, and artistes skilled in the mysteries of prospectus writing, use extensively, have pictured for us successive golden ages in the annals of the world, but the present is invariably far removed from the gilded periods portrayed. After all, we suspect it is only gilt that glistens through the avenues of time. There never was a golden age in the actual past in either a moral, material, or mineral sense. From a mineral point of view the present age is comparatively more golden than any which has preceded it. To-day it is either gold or nothing. Silver pales with shame at the price to which it has fallen; copper loses its ruddy hue when it remembers it used to be four times its present value; lead is heavy and depressed with its own weight, and with the fact that to miners it is an unprofitable commodity; even tin shines with diminished lustre when it recalls the old prices paid per ton for its silvery-looking ingots; and iron, influenced by the inactivity of its markets, joins in the metallic gloom and wears a look of chronic rustiness. In short, gold is "on the boom." South Africa is engaged in the cheerful occupation of record breaking. Every day more plant is being put down in order that a new record may be established. Every month the yield augments, and every quarter the dividends increase. This is, perhaps, the most satisfactory feature of all, and in a great measure it accounts for the "boom" that exists. But not only in South Africa is there life in the gold-producing industry. Western Australia has its boom on; Coolgardie is attracting capitalists, and giving them experience in return for hard cash. Victoria is awakening with visions of richness in depth before her eyes, and discovering auriferous wealth in districts where its existence hitherto was unsuspected. New South Wales has been stimulated into making fresh discoveries at Tamboroora and Hill End. Queensland, too, has been stirred. At Mount Morgan, it is said, a lode of solid pyrites going ounces to the ton has been struck; capital has been forthcoming for Charters Towers properties, and at the present moment attention is being paid to the low grade ores of the Mulgrave field. New Zealand is breaking cost records in hydraulicking, and Tasmania has just made a new discovery of gold. The Colar fields of Mysore promise to exceed their present highly remunerative output, and North America, including New Mexico, has some very big things "up her sleeve" with which she promises to "lick creation." There are some Englishmen who believe in Brazil as a gold-producing country, and purpose restarting exploratory work there as soon as the Brazilians have concluded their game of bloodless war. In the near future, however, we are promised a gold field which will eclipse all records. News comes from the far off land of Ecuador of the discovery of a region which contains thousands of square miles of auriferous gravel, the average depth of which is 70 feet. Every inch is pay dirt. Nature has obligingly mixed with the alluvium just sufficient clay to hold the gold, but not sufficient to interfere with monitor and sluicing operations. The Bounteous Mother has also carried a full-breasted river along a range of hills adjacent to, but hundreds of feet above, the vast alluvial plain:—wise, considerate, beneficent Nature! The gravel is all worth 4s. per square yard—no more, no less—just a dollar, nothing more. It can be worked for 1½d. per square yard, and the moral of that is "there's money in the working on't." This new and distant El Dorado has been acquired by an American syndicate, and the constitution of the board of directors reveals the astuteness of the 'cute Yankee. Brother Jonathan realises that the political firmament of South American States exhibits a variability unsurpassed by anything save an English sky in April—or May. To be prepared for possible contingencies the syndicate have enlisted in their service the President and ex-President of the State and the Commander-in-Chief of the Army and Navy. A seat would have been found on the board for the Commander-in-Chief of the Reserve Forces only there are no reserve forces in Ecuador. More power to our enterprising cousins say we, and may their hopes—incredibly brilliant though they seem—be fully gratified.

This is the age of gold, and every legitimate effort to increase the world's store of the bright yellow metal should be encouraged. Commerce craves for more gold; men of all nations and creeds hunger and thirst for it. Leather circles have ceased to be counters for value; cowrie shells are obsolete as currency except in benighted lands; copper is no longer legal tender; silver is practically demonetised in most progressive States; and GOLD, GOLD, more GOLD, is the universal cry. The thrall of gold is upon us. We live in the Golden Age.

NOTES AND COMMENTS.

WE are again enabled to congratulate the directors of the Devon Great Consols on having passed through a good working year. It is particularly pleasing to note the evidence afforded ach successive half-year of the soundness of the company, notwithstanding the depressed times; the opposition of a class of shareholders; and the many difficulties from other sources with which the directors have had to contend. In the report which the management will present at the meeting to be held next Wednesday, they congratulate the shareholders on the continued favourable position of the company. For the past 12 months the sales of arsenic and copper ore amounted to £20,951. After the payment of two dividends in the last 12 months—together, 6s. per share—equal to 15 per cent. per annum, there is now a credit balance of £2804. As was to be expected, the directors cannot give us any hope of an improvement in the copper market. No one, of course, can predict with any assurance what the future will be. They simply state that the copper market remains in a depressed condition, and look forward with hope to better prices ruling in the next 12 months. We are ourselves rather doubtful of this.

THE directors of the Van Ryn Estate and Gold Mining Company have issued a rather depressing circular to their shareholders. At least, when further capital is needed and reconstruction is necessary, such a position of affairs is not regarded with complacence. The reason assigned by the directors for this appeal is due to "unexpected delays in the development of the mines; the additional costs entailed thereby; the outlay incurred in respect of the purchase and erection of the rock drill plant operated by compressed air; and by the carrying out of various improvements tending to the future economical administration of the property. At the end of the year 1893 the liabilities amounted to £21,601 2s. 10d., and in addition there are outstanding debentures to the amount of £10,000." It will be remembered that in their report of October last year they expressed their satisfaction—although the working for the period under review showed a loss—with the results obtained, which, in their opinion, proved the possession of an "extremely valuable property, which they have every reason to believe will in the near future be not only self-supporting, but highly profitable." We have no intention of commenting upon this statement and the proposal to reconstruct, beyond remarking that the necessity which has arisen is unfortunate.

APROPOS of capital-raising, the directors of that promising concern, the Meyer and Charlton Gold Mining Company, have issued a circular to the shareholders setting forth the reasons for increasing the capital to the sum of £85,000, and the advantages they hope to gain from taking the step. It is consequent upon the report of Mr. J. H. Hammond, who recommends sinking a main incline shaft in the centre of the property; the provision of pumping and hauling gear, head-gear, rock-breakers' &c., and the ultimate erection of a new 40-stamp mill. Mr. Hammond foresees manifold economic as well as other advantages to be derived from the sinking of the proposed main incline shaft, the most important being (1) a saving in the expense of shaft sinking of about £500 for each level; (2) a saving in the cost of cross cutting to the reef of £1000 at the sixth level, with an additional progressive saving of £600 for each succeeding level driven over and above the amount saved on the preceding one; in the exploitation of the upper block of ground an aggregate saving of £17,000 will be effected by the adoption of the incline shaft, instead of the sinking of the vertical shafts; and (3) a material saving in the cost of mining operations by the centralisation of the hauling, pumping, mill, and compressor plant, which would amount to about £3000 per annum. As he considers the expenditure proposed necessary under the circumstances, we have little doubt the shareholders will disapprove of the action, but will see the wisdom of raising the additional capital.

IT is not yet known who will ultimately form the directorate of the Palmarejo Company, though it seems extremely likely that the names suggested by Sir Edwin Galsworthy will meet with the approval of the majority of the shareholders. The proceedings at the adjourned meeting on Tuesday were not without their humorous aspect, though the question involved is really of serious moment to the parties directly interested. Everybody seems to be agreed that the negotiations which have taken place regarding the proposed amalgamation with the Mexican Mineral Railway have resulted satisfactorily, but the negotiations as to the constitution of the new board have not been so smoothly conducted. This is but natural, for persona interests and honour are here involved, and it is not likely that any one would tamely and willingly submit to what might be construed into an indignity. It will be remembered that in a leading article a week or two ago we suggested the name of Mr. J. H. Collins as a suitable director. We regret his name is not suggested as one of the new board. Probably we are advocating this gentleman's claims against his personal wish, still we are doing so in the conscientious belief that his advice would benefit the Palmarejo Company. We hope that whatever may be the ultimate result of the present uncertainty, it will prove the truth of the proverb that, "All's well that ends well."

THE shareholder who at Tuesday's meeting of the Mosman Gold Company confessed to the general impotence of his species, enunciated a far-reaching truth, though in a different direction from what he had imagined. It is to the critical rather than to the tactical helplessness of the average shareholder that his words most fittingly apply. When the ship—to keep to the old, familiar metaphor—is sailing prosperously and the dividends are high, the large mass of proprietors, some few inconsequential grumblers excepted, bubble over with good humour and satisfaction. Once the reef pinches out and the ores fall in value, a marvellous change supervenes. The directors are assailed with all the virulence of a prosecuting counsel. Nothing that they have ever done is right; everything they have done, or proposed to do, or remotely hinted at the expediency of doing, is wrong. To our thinking it rests with the discontented shareholder to point out not only where the directorial policy was wrong, but also what could have been done in similar circumstances to make it right. Destructive criticism is one of the easiest things under heaven to come by. Large numbers of men are gifted with the faculty to a wonderful degree. But for every dozen shareholders who can point out where a board went wrong, there is not one who could make a suggestion reasonably within the bounds of practical possibility, whereby they might have gone right. "You are paying dearly for your stores." "Yes; but can you tell us where we can get them cheaper? Remember, the explosives we use are a monopoly, and repeated experiments do not show that we could advantageously change them." "Then, your labour bill is excessive." "We are bound under the lease to employ so many men, and the price of labour is beyond our control." Thus the honourable shareholder proceeds, raising points which only have to be glanced at to be refuted, and offering no really valuable suggestions. There are laudable exceptions to the rule, but the rule generally obtains.

THE report of Mr. Martin, the Government Inspector, especially that portion of it which deals with Cornish mining, contains little information with which we are not familiar. We have little need to be told that the industry in the Western county is in anything but a satisfactory condition. This is only too apparent, the evidence of which is forcing itself upon us day by day. During the past week or two we have given up a portion of our space to a review of the present position of Cornish mining and to an endeavour to point out that it is not by any means in a hopeless or irremediable condition. With a great many of our views Mr. Martin agrees. Mining enterprises are started with insufficient capital, and drag along with a few men, regardless of the fact that the dead expenses of management, pumping, and surface labour swallow up a large proportion of the already insufficient capital available. If modern machinery were employed, and work gone about energetically, in many cases good mines could be opened out in a comparatively short time. With us, Mr. Martin sees no reason why some of the money which flows into foreign countries should not be kept at home, with a reasonable prospect of good investment, if the work were gone about with combined energy and efficient practical and scientific skill.

WE have long been accustomed to look upon Sir Albert Rollit as *the* authority upon questions of commerce and trade; indeed, almost the oracle from whom we may seek wise and safe counsel upon matters of subtle intricacy. This gentleman has this week been expressing his views upon the prospects of trade; upon existing anomalies and unwise legislation; in a word, upon the phase of evils which at the present time disrupture commerce and agitate the public mind. His prophecy, uttered not so very long ago, as to the prospects of trade, has been fulfilled, so that we may place some reliance and hope upon the opinion he has now expressed. The volume of trade has been progressively advancing, but any permanent improvement can only be looked for through two chief sources—the State and India. In the first, whilst they have sickened of silver, the tariff question has still to be settled, and it is difficult to say when or what will be its ultimate shape, and in India, though the recent scare was premature, it might yet be justified by the silver imbroglio, or by the injustice of the inequality of the new import duties. As to our comparative trade there is much doubt, and really too much despondency. The depression has been world-wide, and it must both end and mend. End it undoubtedly will. That will come about in the order of things, but before it can mend many things must be removed and many things improved, as Sir Albert proceeded to enumerate.

EVERY day fresh difficulties are arising which British trade will have to face and strive to successfully combat. Not the least of these is increasing competition, the organised pursuit and persistence of which is, perhaps, greatest in Germany. Then, again, our re-exports of foreign and colonial produce have been affected by the Suez Canal, which, by enabling Europe to supply itself direct, has undoubtedly decreased our position as the most convenient emporium for the Continent. However, we may encourage ourselves that both facts and figures indicate that there is no weakening in the hold of the United Kingdom, in comparison with its chief competitors, Germany, France, and the States, upon either the import or export trade of the world, which might be improved, too, by colonial expansion and union. Africa presents infinite possibilities. Uganda will assuredly be ours, and our flag has reached Wadelai, the outpost of the Southern Soudan and the Nile. If we only dare to govern, the development of such countries means the renewal of trade on the grandest scale, and the same might be said of our relations with Siam and with the southern provinces of China. In all this there is not only hope, but the certainty of revival.

SEEING that it is the unexpected which generally happens, one ought not to be surprised that some of the shareholders in the Booysen Land and Mining Company should ask for a bigger liability to be put upon the new shares in the reconstructed company. Generally, the contrary is the case, and the proprietors seek to bring the new liability down to its lowest. Not only, however, were the knot of generous shareholders desirous of increasing their liability, but they even went the length of demanding a poll upon the question, and in the result the company was put into liquidation, while the scheme of reconstruction, not securing a three-fourths majority, was rejected. The solicitor to the company, having recourse to a vivid and forceful metaphor, expressed his unqualified conviction that the concern was stuck, for the time being, in the mud, and it remains to be seen what steps will be taken at the next meeting to get it out again. Apart from the humorous phase of the situation, there is much hopefulness associated with it. Whatever differences there may be as to policy, there seems to be complete unison of conviction as to the value of the property. "Your property won't run away, gentlemen!" remarked one of the scrutineers, as he raised his head for one moment from the voting lists, and appeared to be struck suddenly with the humour of the situation. Yes; the property is there, and it surpasses in value whatever it may have been worth at any earlier period of its existence. That is beyond doubt.

THAT silver mining in the United States is making headway is clear from the fact that the production of silver in the United States for the past year, 1893, has just been finally estimated by the directors of the Mint at no less than 60,000,000 ounces. Colorado stands at the head of the list, with a production of 25,838,600 ounces, of the coinage value of $33,407,483, or over

£6,680,000 of English money. It is satisfactory to find that this is an increase of 1,838,600 ounces over the returns for 1892, Clearly, progress is being made. It is true that Montana, which ranks second, shows a falling off of about 450,000 ounces, but this circumstance has been more than counterbalanced by increases in other directions, the net result being that the United States total is 2000 ounces more than for the year preceding, and $5,500,000 more than the aggregate for 1890. The coining value of the silver produced last year was $77,575,757, or some £15,575,000; but it is a striking commentary upon current monetary conditions that the market value of this quantity of silver at present prices less than half this amount. The two States already named produced about 70 per cent. of the total for the United States, Colorado alone being responsible for about 40 per cent. All the other States were far below this. We arrange the chief ones in order of value as here:—Utah, 7,196,300 ounces; Idaho, 3,910,700; Arizona, 2,935,700; Nevada, 1,561,300; California, 470,100; New Mexico, 458,400; Texas, 349,400; Washington, 152,700; South Dakota, 140,400; Michigan, 43,500; North Carolina, 13,400; Oregon, 11,800; Alaska, 9600; and so on.

INFORMATION has been received by the Ontario Bureau of Mines that tin ore has been discovered in the vicinity of Sudbury. The ore is described as occurring in a ledge of white quartz standing boldly out from the surface of the rock Samples of the ore have been assayed, and have been proved to be cassiterite. It occurs in crystals in the rock. These, however, do not show the crystalline formation, but are rather fragmentary, varying in size from that of a grain to a small bean. The samples of the quartz brought into Toronto by the prospectors were fairly well filled with these fragments of cassiterite. Should this discovery prove to be one which will show the possibility of successfully working the claim for tin, its importance may prove far-reaching. As soon as the season opens it will be possible for further investigations to be made as to the extent and pecuniary value of the deposits. If it is found that tin ore is present in paying quantities, we shall doubtless hear more about the matter.

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

A quiet week.—Kaffirs fairly firm.—Chartered relapse and rally.—Diamonds depressed.

DULLNESS—not, however, of a pronouncedkind, was the prevailing condition of in the mining market at the commencement of the week. This was again referable not to any serious cause, but merely to the general indisposition to large operations. Clear evidence of this was to be found in the insignificant nature of those declines which did take place. Land shares exhibited the greatest weakness, moving in sympathy with Chartered, which unexpectedly fell 1s. 3d. to 34s. 3d. Rand shares were a conspicous exception to the prevailing languor. Simmer and Jack, Robinson, and Geldenhuis Estate displayed a highly satisfactory tone, while minor improvements also took place in City and Suburban, Kleinfontein, New Primrose, United Roodepoort, and Wolhuter. One or two small relapses took place, but these were of no importance. In the miscellaneous market there was a very satisfactory undercurrent of firmness, buyers being pretty numerous. Quotations showed that the shares had made no movement of any extent in either direction. Gold shares were widely enquired for, and showed a hopeful tendency. Ooregums and Gold Fields of Mysore also took a favourable turn. Both markets throughout Tuesday remained dull—using theword to express merely the absence of business, and no downward movement of prices. Rand shares continued strong. Henry Nourse, Robinson and Randfontein were the principal favourites, the two latter receiving considerable support from Paris. In diamonds, De Beers displayed much activity, but Jagers were quiet. Chartered continued to strengthen, and closed 3d. up on the day, after one or two doubtful movements. The rise carried with it, in sympathy, several of the other land shares. Flatness, affecting generally the whole market, had its effect upon the miscellaneous shares, which were almost lifeless. One or two of the weaker shares were offered, but with this exception the department continued featureless. Diamonds shares, which were rather depressed, apart, there was a healthy tone in the South African department on Wednesday. Rand shares lost none of the strength exhibited earlier in the week. Crown Reef were much better, but the advances were general, and upon that account it is unnecessary to particularise. The Land department, like diamonds, was weaker, in sympathy with Chartered, which vacillated dubiously. In the absence of outside support, the preponderance of sellers in the Miscellaneous department led to a generally easier tone Don Pedro and East Kootenay were the favourable exceptions, small rises taking place in each case. Business was restricted in both branches of the market on Thursday. One or two sales in the South African department led to an easy maintenance of the strength exhibited during the previous days in Rand shares. Especial attention was given to the more remunerative and certain classes of shares, which improved accordingly. Diamonds did not better. Large offerings of Jagersfonteins were responsible for this. Land shares, however, were healthier. Chartered changed little, but Bechs, and Explorings rallied. The Miscellaneous market was again quiet. Champion Reef, Tolima A, and St. John del Rey were the exceptions at a fair rise, and Rio Tinto recovered 5-16, closing at 14¼.

British Mines.

There has not been any activity in the Cornish market this week. Transactions have been unusually limited, and at the moment there is not much disposition either to buy or sell. The run in the shaft at Dolcoath has not yet been cleared, still there is a general impression that it soon will be, and the shares in consequence are firm at 73. The returns have not been materially interfered with. A moderate business has been done in Killifreth. East Pools are about 10¼, with a limited market. Polberro are better at 25s. "buyers." South Crofty are quiet at 40s. West Kitty are lower, and the prospect of a 10s. call has not been well received in the district. Blue Hills are in request at 7s. 6d. During the week the prospects have improved, and the same remark applies to Wheal Kitty.—Risen: Cook's Kitchen, 2s. 6d.; Dolcoath, 10s.; Killifreth, 2s. 6d.; Polberro, 5s.; and Wheal Kitty, 2s. 6d.—Fallen: Carn Brea, 10s.; Phœnix, 1s.; South Crofty, 10s.; South Frances, 2s. 6d.; West Frances, 7s. 6d.; West Kitty, 7s. 6d.

South African Shares.

Business in the South African market was generally dull at the commencement of the week. The Rand department, however, continued firm, the only weakness of the market being in Land shares. Some unimportant sales occurring in the latter branch, occasioned one or two declines of no serious nature. Chartered relapsed 1s. 3d. to 34s. 3d., while Bechs. and Oceanas declined 1s. and ⅛, respectively, in sympathy, but Oceana Developments hardened, and Central Africans continued strong. Enquiries for Simmers, Geldenhuis Estate, and Robinson resulted in a rally. The receipt of a cable stating that boreholes have struck the reef on the western portion of the property sent the last-mentioned shares up a 1s. Cities, Primroses, and others hardened, but Villages, Chimes, Meyers, Modders, and one or two others were lower. African Gold Recovery reacted, and Aladdins and Wentworths were not so firm. There was but little activity in the market on Tuesday, but this did not affect the firmness of prices to any great extent. Rand shares especially remained strong, and whatever changes were registered were in an upward direction. Henry Nourse, Robinson, and Randfontein absorbed considerable attention. Henry Nourse rose 5-32 to 2 13-16. Robinson closed firm at 6 1-16, and Randfontein were up to 15s. 6d. buyers. Among the other shares which rallied were Paarl Central, Pioneer, Crown Reef, Geldenhuis, Goldfields of Mashonaland, New Rietfontein, Princess, and Stanhope. Gains of a shilling were registered in Spes Bona and Geldenhuis Main Reef. Slight improvements also took place in East Rand, May Consolidated, and Modderfontein. On the contrary, Rand Mines and Salisbury declined ⅛, while signs of weakness were exhibited by Jubilee, Jumpers, Village Main Reef, Wemmer and Wolhuter. De Beers continued to be warmly supported, and they rose ⅛. The market for Jagersfontein, however, remained dull. After some fluctuation Chartered left off at 34s. 6d. With the exception of diamond shares the South African department was fairly active throughout Wednesday. Rand shares were especially hopeful in their tendency. Crown Reef developed strength at an advance of 3-16, and closed at 9 5 16. City and Suburban were ⅛ higher at 13 7-16, and Geldenhuis Estate also rose nearly ⅛ to 5 7-32, while the enquiry extended to Jumpers, Langlaagte, Robinson, and Simmer and Jack. These and Consolidated Deep Level, Durban-Roodepoort, Geldenhuis Deep, Heriot, and Village Main Reef were all from 1-32 to 1-16 higher on the day. Rand Mines once more attracted buyers, and were up to 8⅛, but a slight falling off occurred in Crœsus, Henry Nourse, Jubilee, Meyer and Charlton, New Rietfontein, and Paarl Central. Randfontein, among the cheaper shares, were at one time dealt in at 16s., but finally relapsed to Tuesday's closing price. East Rand rose 6d. to 12s. 9d., Spes Bona recovered 1s. 6d. to 12s., and United Langlaagte 1s. 3d. to 15s. Block B were also 1s. higher at 8s. 3d., and Modderfontein hardened the turn to 11s. Several of the lower-priced land shares were in demand at small improvements. There was a healthier tone in the South African Market on Thursday, Rand shares being especially buoyant. Sellings being below the demand some considerable advances took place. The one weak spot in the market was Jagersfontein, which continued flat owing to a large offering of the shares. Among gold shares conspicuous advances were recorded by Wemmer, Henry Nourse, and Crown Reef. An improvement amounting to 3-32 was also recorded in Consolidated Deep Level at 2 1-16, in Langlaagte at 4 11-32, and in Wolhuter at 3 3-32, while Rand Mines rose ⅛, closing at 8⅜. City and Surburban, Heriot, Meyer and Charlton, and Robinson also felt the favourable influence, and these, together with Geldenhuis Deep, Gold Fields of Mashonaland, Nigel, and Worcester, were each 1-16 to the good. Transvaal Gold once more showed firmness at 2, but Kleinfontein and New Chimes eased off, and Sheba and Alexandra Estate were a trifle weaker. Modderfontein continued to improve, being marked up 9d. to 11s. 9d., and Randfontein and Block B were also strong. Chartered displayed much activity and, as usual, vacillated widely. At one time they hardened to 35s., but after remaining firm at that figure finally fell back to 34s. 9d., where they closed. Small advances occurred in Bechuanaland Exploration and Exploring. The improvement recently exhibited in the tone of the South African department has been, on the whole, fully maintained throughout to-day. Jumpers and Robinson have been the two most conspicuous features, both of which have been bought at advances. There has been, in fact, a demand for most of the better class gold shares, City and Suburban, Heriots, and Simmer and Jack being especially firm. Some attention has also been directed towards the low-priced Kaffirs. Land and diamond shares have, on the other hand, been very quiet. Risen: African Gold Recovery, 7s. 6d.; Block B, 1s.; Consolidated Deep, 3s. 9d.; City and Suburban, 5s.; Crown Reef, 5s.; Durban Roodepoort, 7s. 6d.; East Rand, 1s.; Geldenhuis Deep, 2s. 6d.; Geldenhuis Estate, 5s.; Glencairn, 6d.; Gold Fields of Mashonaland, 2s. 6d.; Henry Nourse, 2s. 6d.; Heriot, 7s. 6d.; Johannesburg Water, 6d.; Jumpers, 5s.; Langlaagte, 2s. 6d.; Modderfontein, 3s.; New Primrose, 2s. 6d.; Nigel, 1s. 3d.; Paarl Central, 1s.; Randfontein, 1s. 6d.; Reitfontein, 2s. 6d.; Robinson, 7s. 6d.; Simmer and Jack, 10s.; Southern Land (15s. paid), 2s.; ditto (fully-paid), 1s.; Spes Bona, 1s. 3d.; Stanhope, 1s. 3d.; Transvaal Exploration, 1s.; Wemmer, 5s; Wolhuter, 2s. 6d.—Fallen: Alexandra Estates, 6d.; Bantjes, 1s.; Bechuanaland Exploration, 6d.; Jubilee, 5s.; Kleinfontein, 1s. 3d.; Luipaard's Vlei, 6d.; Meyer and Charlton, 5s.; Moodies (fully-paid), 1s.; Mozambique, 1s. 3d.; New Jagersfontein, 7s. 6d.; New Crœsus, 1s. 3d.; Northern Transvaal Land (fully-paid), 6d.; Oceana Development, 1s. 3d.; Salisbury, 2s. 6d.; South African Exploration, 5s.; South African Gold Investment, 1s.; South African Trust and Finance, 6d.; South Simmer and Jack, 1s. 3d.; Transvaal Land (15s. paid), 6d.; Transvaal Land (fully-paid), 6d.; United Ivy Reef, 1s. 3d.; Van Ryn, 2s. 6d.; Zambesia, 5s.

Indian and Miscellaneous Shares.

A fairly active tone characterised the Indian and miscellaneous market throughout Monday. Among miscellaneous shares rises of ⅛ and 1-16 respectively took place in Ooregum Preference and Ooregum Ordinary. Mysore Goldfields rallied 1s. A corresponding decline took place in Mysore Reefs, notwithstanding the encouraging nature of the cablegram received on the previous Saturday. Among the lower priced shares there was considerable activity. A rise of 1-16 to 14¼ took place in Rio Tinto, but Libiola fell ⅛ to 3. This market remained very quiet throughout Tuesday under the influence of the flatness generally prevailing. Business on both sides was very narrowly restricted. There was a large enquiry for Gold Fields of Mysore, the buyers being thought to possess some special information. Aladdins were 1-16 easier at 1 3-16, and Australasian Mining, Day Dawn P.C., Montana, and West Argentine were all slightly worse. Copper shares exhibited weakness, Rio Tinto declining ⅛ to 14⅜ Cape Copper, Mason and Barry, and Tharsis being all 1-16 to the worse. The miscellaneous market had not recovered from its dullness on Wednesday, but there were indications of a better time waiting in the future. Frontino and Balaghat declined 1s. each, and Broken Hill Proprietary were again lower at 2⅜. There was an easier tone in Mysore Gold Fields at 24s. 6d., and in De Lamar, Callao Bis, Burma Baby, Australian Broken Hill, American Belle, and Day Dawn Block. Glenrock and South-East Mysore were the turn lower. Don Pedro, however, recovered 6d. to 3s., and East Kootenay were in demand at 16s. Rio Tinto improved 1-16 to 14 7-16, and Mason and Barry 1-16 to 2 9-16. There were few exceptions to the dullness which generally pervaded the miscellaneous market throughout Thursday. Props went down with the fall in silver, and Baker's Creek, Mount Morgan, Hampton Lands, Day Dawn P.C., and West Argentine were weak. Mills' Day Dawn and Craven's Caledonia, however, showed improvement, and Bonnie Dundee were somewhat more firm on the striking of a new reef. Champion Reef continued to advance, closing at 4. Rio Tinto rose 5-16 to 14⅜. To-day has passed away without any change in this department, the tone remaining a flat one. Indians have been quiet, the exception being Mysore Reefs, which have been in demand. Risen: Aladdins, 1s. 3d.; Champion Reefs, 1s. 3d.; Columbian Hydraulic, 6d.; Craven's Caledonia, 1s.; Gold Fields of Mysore, 1s.; Mill's Day Dawn, 1s. 3d.; Mysore Reefs, 2s. 6d.; New Guston, 1s.—Fallen: Baker's Creek, 2s. 6d.; Balaghat, 1s.; Burma Ruby, 6d.; Day Dawn P.C., 6d.; De Lamar, 1s.; Elkhorn, 6d.; Golden Feather, 1s. 6d.; Golden Gate, 6d.; Libiola, 2s. 6d.; Linares, 2s. 6d.; Mount Morgan, 1s. 3d.; Mysore, 1s. 3d.; Nundydroog, 1s. 3d.; Ooregum, 2s. 6d.; ditto, preference, 2s. 6d.; Poolman, 6d.; Quebrada, 1s. 3d. Rio Tintos, 1s. 3d.; Waihi Gold, 1s. 3d.

SETTLING DAYS.

(Ticket Days.)	MAY.	(Account Days.)
Tuesday, May 29.		Wednesday, May 30.
	JUNE.	
Wednesday, June 13.		Thursday, June 14.
Wednesday, June 27.		Thursday, June 28.

CONSOLS SETTLING DAY.
Friday, June 1.

COMPANIES AND THEIR DOINGS.

Reports, Balance Sheets, Dividends, &c., of Mining, Railway, Banking, and other Companies.

MINING COMPANIES.

Devon Great Consols Company.

The directors' report, to be presented at the meeting to be held next Wednesday, states:—The directors, in presenting their report and the statement of accounts to 30th April, 1894, with the local manager's and the engineer's reports, have again to congratulate the shareholders on the continued favourable position of the company. As will be seen from the statement of accounts for the past 12 months, the sales of arsenic and copper ore have amounted to £28,951. It will be in the recollection of the shareholders that after providing £396 5s. for land damage under the old leases, to be paid to the Duke of Bedford on the new leases being obtained, and £200 on account of legal expenses in connection with the new leases and revised Articles of Association—together, £596 5s.—there was a credit balance of £2662 5s. 10d. carried forward on the 30th April, 1893, and which is shown in the profit and loss account now submitted. The present profit and loss account gives full particulars of the amounts received and expended, and of the stocks in hand in comparison with those in hand 12 months ago, whilst the balance sheet gives an account of the capital and property of the company. After the payment of two dividends in the last 12 months—together, 6s. per share—equal to 15 per cent. per annum, there is now a credit balance of £2804. The report of the engineer (Mr. William Mathews) as to the state of the several engines, boilers, water wheels, and the plant and machinery generally, shows all to be in good working order. The various developments of the mines now in operation are fully detailed in Captain Clemo's report. From this report it will also be seen that a large amount has been expended on the arsenical works for the future benefit of the company. As was predicted a year ago, the copper market has remained in a depressed condition, but there is some hope of better prices ruling in the next 12 months. The directors are pleased to inform the shareholders that a satisfactory contract for this year's production of arsenic has been made. The annual compiled particulars of the plant, machinery, developments, sales of copper ores, arsenic, &c, and the dividends paid to shareholders since the commencement, are appended to the report. Mr. Peter Watson, as a director, and Messrs. G. T. Rait and F. W. Freese, as auditors, retire, and being eligible offer themselves accordingly for re-election at the general meeting to be held on the 30th instant. At this meeting of shareholders the directors will announce the declaration of a further dividend, and they hope that all shareholders who can conveniently attend will do so.

West Kitty Mine Company.

The following circular has been issued to the shareholders:—The very careful attention of the committee has been directed to the capital requirements of West Kitty in consequence of the important discovery made in the new ground south of the slide. The committee regret that at the last meeting of shareholders their investigations were not sufficiently forward to report to the company, but since the meeting Mr. Lennox and I have made every investigation on the spot, and as a result of reports by our agents and others there can be now no doubt that the lode discovered is that of West Kitty, and that its value is beyond question, inasmuch as it is certain that the ground already opened up discloses to sight several thousands of pounds worth of tin. The discovery is evidently much more important than is generally known, but the fact remains that practically there is the discovery of a new mine altogether, and the south ground must be worked, if worked efficiently, through another shaft. It, therefore, becomes an absolute necessity to provide immediately for the working of this new section, and inasmuch as an immediate outlay of £3000 will be undoubtedly to the great advantage of the company, no time should be lost in providing the money. A new engine, boiler, pitwork, additional stamps, and many other things will be wanted, but a very careful estimate has resulted in the confident belief that the sum mentioned will be sufficient. Assuming that the recommendation of the committee, which is to raise this money by way of a 10s. call is adopted, it is believed that as a result of the fair and moderate working of the mine, a dividend will be declared at the meeting to be held on the mine in August next, and it is also believed that dividends will not be interrupted in the future, even with the present price of tin. Along with the notice convening the meeting of shareholders for the consideration of these questions, you will receive a proxy, which (if you approve of the policy of the committee, and would like to be represented at the meeting) please return duly signed as directed; but if you do not approve, kindly state your reasons in writing, as the committee desire to do that, and that only, which will meet with the approval of their fellow shareholders. The committee are anxious that as much energy should be thrown into the management as is possible, it seems perfectly certain, in our opinion, that the shareholders have a magnificent property, and to trifle with it, or to spread the outlay, which must be made, over a period of years, thus losing time and seriously interfering with the dividend prospects of the company, would be as unwise as it is absolutely unnecessary. By the immediate outlay as explained herein, it is our confident belief that the company will not only be placed in a very sound position, but that the prospects will be better than at any former period of its history; and in this view we believe we shall be supported by any independent authority who knows his business, and the facts of the case.

Waihi Gold Mining Company.

The following is the report of the directors to be submitted to the shareholders at the ordinary general meeting to be held next Thursday. The revenue account shows gross receipts £61,759 11s. 8d. expenditure, as detailed in the account, £32,221 5s. 10d., and a profit balance £29,538 5s. 10d. Out of this balance three dividends of 1s. per share each, equal to 15 per cent. per annum on the share capital, have been paid, absorbing £22,500, the additional remuneration of directors, in accordance with Articles of Association, requires £703 16s., leaving a balance to be carried forward of £6334 9s. 10d. The sum of £5000 received from the sale of tailings has been credited to the net expenditure account on the property, thereby reducing it to £149,815 12s., or rather

less t[illegible]e share capital of the company. The whole of the expenditure for the year, including outlay on plant and mine developments, has been charged against revenue. During the year 19,805 tons of ore were treated, producing bullion to the value of £61,745 13s. 2d. The bullion returns on account of the year 1894 have been as follows:—

Period ending.	Tons.	Bullion.
10th February	2300	£6588
10th March	1800	4700
7th April	1750	5000
5th May	1650	4500

A fourth dividend of 1s. per share on account of the year 1894 was paid on the 2nd April last. The experimental plant erected for the treatment of the company's ore by the cyanide process having proved successful, the directors have completed a large plant capable of treating by this process an output of 2000 tons per month. Recent telegraphic advices state that this plant is now in operation, and will henceforth treat the whole output of the mine with "a most beneficial effect upon the returns" The treatment of the ore product by the cyanide process is also attended with several collateral advantages to the company, viz :—(1.) The abolition of the pans and the use of mercury for amalgamation.—(2.) The large power hitherto used for driving the pans, being no longer required for that purpose, is now available for extending the crushing plant, so as to prepare a larger quantity of ore for treatment.—(3.) As the treatment by cyanide does not require the ore to be crushed so fine as for pan amalgamation, it is believed the present crushing plant can deal with 2000 tons per month instead of the smaller quantity hitherto crushed. The shareholders have been fully advised from time to time of the developments upon the property, but it is important here to record that in the level driven from the shaft at 70 feet below the adit level a reef of great value has been cut and driven upon for some distance. This reef was supposed to be the Martha main lode, but it is now known to be a new and separate reef. From the point of discovery to the surface there are from 200 to 300 feet of backs. This new reef thus forms an important addition to existing large ore reserves in sight. The main lode has been cut at 50 feet north of this new reef. The latest telegraphic advices describe it as a well-defined lode. Driving through the main lode still continues, and the directors congratulate the shareholders upon the satisfactory outlook of the whole property. The plant, machinery, buildings, and water-courses have been well maintained and various additions and improvements made thereto, and the company's mills and works are reported to be the best in the colony.

The Transvaal Silver Mines.

In their report to the shareholders the directors of the Transvaal Silver Mines (Limited) say :—As stated in their last report, your directors secured the services of Mr. E. Wertheman to make a full report on the property, and on the receipt of the same they entered into an agreement with him to proceed to Europe for the purpose of securing a concentrating plant, and upon his return to become the general manager of the company for one year. Mr. Wertheman accordingly left for Europe on the 25th January, 1893, and ordered a plant from the Luhrig Coal and Ore Dressing Appliances (Limited) capable of treating considerably more ore than was at first contemplated, and, therefore, exceeding the cost estimated by your board in their last report. He returned to South Africa, and took up his duties as the general manager of the company on the 1st of May, 1893. The machinery began to arrive at the mine on the 21st June following, and on the 17th September one half of the plant was set in motion. On the 17th October the full plant, with a capacity for treating 108 tons of ore in 12 hours, was at work, an accomplishment meriting the highest praise, as a period of less than 9 months had elapsed since Mr. Wertheman proceeded from this country to Europe for the purpose of selecting the plant. During the period of concentration work under review 5972¼ tons of ore were treated, producing 1263 tons of concentrates, giving a value of (taking silver at 27¼d. per ounce, and lead at £9 0s. 8d. per ton) £9786 18s. 5d. sterling, from which must be deducted the cost of treatment amounting to the sum of £2439 14s. 1d. sterling, leaving a profit of £7347 4s. 4d. after paying all expenses of transit and reduction. In view of the mine being sufficiently opened up to furnish the daily quantity of ore required for the new concentration plant easily, your directors decided on the 5th August to suspend mining operations, except pumping, until concentration results could be obtained, consequently the cost of treatment given above does not include mining. Your general manager, however, confidently asserts that he will be able to manipulate the ore at a total cost (mining and treatment) not exceeding 20s. per ton, and he considers that the problem of treating a class of ore which by no other method could, under existing circumstances, be worked to advantage, has been solved.

Mines Trust (Limited).

The report states that a profit of £3476 has resulted from the year's transactions, which, together with £139 brought forward, makes a total of £3615. In case the resolutions as to amalgamation should not be carried at the extraordinary general meeting, the directors propose to place £1000 to reserve, which will then stand at £4000, and recommend the payment of a dividend of 3 per cent., leaving £132 to the credit of next account. The holding of the annual general meeting has been deferred, in consequence of certain important proposals that were made to the trust, and which the directors wished to submit to the shareholders. These proposals, which have now assumed a definite form, have reference to an amalgamation between this trust and the South African Gold Trust (Limited). A new company has been registered with this title, to acquire the assets of the South African Gold Trust and Agency Company (Limited), and having a nominal capital of £250,000 in 250,590 shares of £1 each, of which 170,000 shares will be issued to the present holders of the South African Gold Trust and Agency Company's shares. It is proposed by the new company to acquire the whole undertaking of the Mines Trust (Limited) in exchange for 42,637 fully paid-up shares and £10,659 5s. in cash. Particulars of the assets acquired by the new company from the South African Gold Trust and Agency Company (Limited) have been submitted to the directors, and as fair a valuation as they are able to arrive at shows the shares of the new company to be intrinsically worth 35s. each; so that the liquidator of the Mines Trust (Limited) would be able to distribute to the holders of both ordinary and founders' shares cash and shares to the value of, say, 20s. for every £1 paid up, less the cost of liquidation. The value of the assets of the Mines Trust, on which the proposal of the Gold Trust is based, has been agreed with that company with the exception of loans amounting to £7739, which are not immediately realisable. This asset, which represents about 1s. 10d. per share, would, therefore, remain in the hands of the liquidator pending realisation, but the shares would be immediately available for distribution. An extraordinary general meeting will be held on Tuesday, June 5, when these propositions will be formally submitted to the shareholders.

Frontino and Bolivia Gold Mining Company.

The directors have received advices from the mines, dated 22nd March and 6th April, also a letter from Messrs. Restrepo, dated 12th March. The statement for the month of March is as follows:—2576 tons produced 2800 ounces bullion. Tributers' gold produced 106 ounces bullion; total, 2906 ounces. Also 42,602 lbs. of sulphurets, valued at £956 10s. 6d. Estimated value of the gold and sulphurets, £7107 16s. 6d. Cost at the mines, Medellin, and in London, £4626 16s. Estimated excess of returns, £2481 0s. 6d.

— Letters of allotment in the QUEENSLAND CARATAL SYNDICATE (LIMITED) have been posted.

— The secretary of the ISLE OF MAN COMPANY (LIMITED) sold on May 19th 100 tons of the company's ore at £6 19s. 6d. per ton.

— The transfer books of the GOLD FIELDS OF MYSORE (LIMITED) will be closed on Saturday, the 26th instant, owing to the issue of 55,000 ordinary shares.

— The OURO PRETO GOLD MINES OF BRAZIL (LIMITED) has sold the gold obtained in the month of March for £4257 1s. 1d.

— The directors of the SIMMER AND JACK GOLD MINING COMPANY (LIMITED) have declared a dividend of 10 per cent. for the quarter ending May 31st next.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

AFRICAN GOLD RECOVERY.—The directors have received cable advice which they read as decisions by the Transvaal Court in their favour in two test cases for recovery of royalties due under contracts, payment of which had been delayed or refused.

BIGGENDEN MINING.—The manager of this company, under date the 7th April, reports that the continuation of the gold deposit from which a small trial crushing was sent to Ballarat some years ago, has been picked up, showing gold and bismuth, but the extent of the ore body has not yet been ascertained. A trial lot will be put through the mill, and the result will be reported later.

BONNIE DUNDEE.—The directors have received the following cablegram, dated Charters Towers, May 23 :—"Have completed the No. 3 (new) shaft to a depth of 620 feet. Have cut a formation 6 feet wide, carrying a reef 12 inches thick of poor quality. The reef cut is supposed to be the Queen Cross reef."

CHAMPION REEF.—The directors have received the following cablegram from the mine, dated 21st inst. :—"60 stamps running. Compressor started."

CITY AND SUBURBAN.—Warrants for the March dividend have been posted.

GUADALCAZAR QUICKSILVER.—The quantity of quicksilver drawn off during the two weeks ending May 17th, as cabled from the mines, amounts to 3550 lbs. = 47⅓ flasks

JAY HAWK AND LONE PINE CONSOLIDATED.—The directors have received the following telegram from the manager, viz :—"Estimated return for last week 8500 ounces. The lode in the 1500 is opening up well."

KABOONGA.—The following cablegram has been received from the manager at the mine :—"Rise in south-west drive finished. Borings in the face of top level next week. Other rise 53 feet."

KAPANGA.—The directors have received the following telegram from the manager, viz :—"During the week the shaft has been sunk 3 feet; unavoidably delayed by floods.—Coromandel: The average width of the lode is 2 feet, and carries gold in paying quantities."

LAS CABESSES MANGANESE.—Production for the week ending May 19 (four working days, Monday and Tuesday in Whitsun week being holidays), 286 tons, or a daily average of 71·6 tons.

MOSMAN.—The directors have received the following cablegram from the manager at Charters Towers :—"Have crushed during the fortnight 229 tons of North Australian stone for 334 ounces of gold. The expenses of both North Australian and Wyndham Mines for the fortnight amount to £900." The approximate value of this return is £1150.

MOUNT ZEEHAN (Tasmania).—The following telegram has been received, dated Hobart, 22nd inst. :—"Have treated during six days 180 tons of ore, yielding about 34 tons concentrates, containing about 25 tons 10 cwts. of lead, and 2550 ounces of silver. Have shipped per s.s. *Hohenzollern*, 90 tons of concentrates."

MYSORE REEFS.—The directors have received the following telegram from the mine, dated May 19 :—"Vertical shaft, 200 feet level south, width of lode 2 feet, assaying 4 ounces 14 dwts. per ton; north, width of lode 2 feet 6 inches, assaying 2 ounces 5 dwts."

NIGEL.—Warrants for the March dividend have been posted.

ORITA.—The directors have received the following cablegram from their superintendent relating to run No. 77 :—"We have cleaned up £500, the profit on which is £300. We have recommenced washing."

OURO PRETO.—This company has sold the gold obtained in the month of March for £4257 1s. 1d.

QUEEN'S BIRTHDAY UNITED.—The following cable has been received from Mr. W. T. Hansford, the company's local secretary at Dunolly, dated May 25: "Belgium and Perseverance Mine, 200 feet level, have struck and driven in upon the lode altogether 50 feet. Gold has been discovered, the lode is looking promising; we think this lode will yield an orebody of considerable value. Queen's Birthday Mine, conditions and prospects of the workings at various levels are most encouraging."

RANDFONTEIN ESTATES.—The following cablegram has been received, which refers to further tests which are being made along the line of reefs on the company's property, the outcrop not being visible on account of very deep layers of red sand forming the surface of soil :—"Boreholes on Randfontein: Have struck reefs at 500 feet and 250 feet ends of block of 168 claims. Outcrop must be inside the western boundary. The reefs are nearly vertical, and have an average assay value of 4 ounces 5 dwts. per ton."

RIPANJI QUICKSILVER.—A telegram dated the 20th inst., from the mine manager, advises that the first 50 tons of concentrates sold, containing about 32 tons lead, and 3000 ounces silver, has been despatched to the Königl. Hüttenamt at Friederichshütte, Silesia. The main portion of the additions to the dressing plant were despatched from the makers in Germany on the 12th inst., and are daily expected at the mine.

VICTORIA GOLD MINING ASSOCIATION.—The fortnightly crushing has been cabled as follows :—"240 tons crushed yielded 396 ounces gold."

ZEEHAN-MONTANA.—The following telegram has been received, dated Hobart, 22nd inst. :—"Yield for the month 90 tons first-class ore, and 30 tons concentrates (containing about 84 tons lead, and 12,000 ounces silver); expenses, £350. Have shipped 90 tons per s.s. *Hohenzollern*."

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET—LONDON, MAY 25.

Copper.

THE G.M.B. market opened quiet at £39 2s. 6d. s.c., and was depressed by speculative sales on Monday and Tuesday, £38 18s. 9d. s.c. and £39 5s. three months being eventually accepted. From these points, however, there was a gradual recovery, due to buyers again predominating over sellers. Spot accordingly recovered to £39 on Tuesday afternoon, rose to £39 7s. 6d. on Wednesday, and to £39 8s. 9d. on Thursday. Three months, which had meanwhile risen to £39 15s., closed lower on Thursday evening at £39 11s. 3d., whilst there were no buyers of spot at over £39 6s. 3d. To-day's transactions resulted in a further relapse, and the market closes quiet though steady at £39 6s. 3d. to £39 7s. 6d. s.c. and £39 12s. 6d. to £39 13s. 9d. three months. Consumers' copper has been in somewhat better demand this week. In furnace material we hear of no transactions.

Tin

opened with spot Straits more in demand and difficult to obtain. The value—assisted also by an advance in silver—consequently rose steadily from £71 on Monday to £71 15s. on Tuesday and Wednesday. From that figure prices eased off gently, touching £71 7s. 6d. and then recovering to £71 12s. 6d. on Thursday. Forward tin has gone a-begging, and is quoted at only 7s. 6d. over cash, whereas a few weeks since it stood at 20s. premium. To-day we have had a firmer market, with business at £71 15s. to £72 5s. three months, and £71 10s. s.c., values closing at £71 15s. to £71 17s. 6d. s.c. and £72 2s. 6d. to £72 5s. three months. Billiton tin has fallen steadily, opening at 43 fl. s.c. to 43⅜ fl. three months, and closing at 42¾ fl. and 43¼ fl. three months respectively.

Pig Iron.

The Glasgow market has been, on the whole, flat, and values have tended downwards. On Monday the range for Scotch warrants cash was 41s. 6½d. to 41s. 7½d., on Tuesday 41s. 7½d. to 41s. 6d., on Wednesday 41s. 5½d. to 41s. 2½d. On Thursday the market was closed, and to-day, after business at up to 41s. 5½d., it closed in firmer tendency with s.c. Scotch at 41s. 5½d. buyers, whilst hematite closes at 43s. 6d., and Cleveland at 35s. 2d.

Lead.

There is nothing of special interest to say under this head. The tone has been steady and values steadfast at £9 2s. 6d. to £9 3s. 9d. soft foreign. English is quoted at £9 3s. 9d. to £9 5s.

Spelter

has been quoted a shade under last week's close, but the market maintains its stability, notwithstanding the quietude of demand. The close is at £15 13s. 9d. to £15 15s. ordinaries, and £15 17s. 6d. specials.

Antimony

is dull at £34.

Quicksilver

remains unchanged at £6 firsts, and £5 19s. seconds.

The following are to-night's (May 25) prices of metals:—

	£ s. d.	£ s. d.
Copper.		
Tough cake and ingot	41 5 0	41 15 0
Best selected	42 5 0	42 15 0
Sheets and sheathing	53 0 0	51 0 0
Flat bottoms	53 0 0	54 0 0
Chili bars	spot, & 3 months respectively 39 6 3	39 12 6
Good merchantable,		
Copper tubes, seamless	—	0 0 7¾
Alloys.		
BRASS: Wire	—	0 0 5
,, Tubes (solid drawn)	—	0 0 5¾
,, Sheets	—	0 0 5¾
PHOSPHOR BRONZE: Alloys II.	—	88 0 0
,, ,, III. or V	Cog Wheel Brand —	93 0 0
,, ,, VII.	—	95 0 0
,, ,, XI.	—	90 0 0
,, ,, Vulcan brand A1 B,C.	80 0 0	85 0 0
DURO METAL	80 0 0	85 0 0
BULL'S METAL	—	70 0 0
Ferrobronze (Vivian's).		
Ingots ...per lb.	0 0 5¾	—
Ordinary sheets, plates, bolts and bars	0 0 6¾	—
Screw bolts and nuts	0 0 8¾	—
Pump rods, plain	0 0 7¾	—
,, finished	0 0 10¾	—
DELTA METAL: No. 4 (per ton)	—	73 10 0
,, Sheets and plates (perh.)	0 0 10½	—
,, Bars, round, square, flat (per lb.)	0 0 9¾	—
,, ,, hexagon (per lb.)	0 0 9	—
Tin.		
English, ingots, f.o.b.	75 0 0	75 10 0
,, bars	76 0 0	76 10 0
,, refined	77 0 0	77 10 0
Straits, spot and 3 months respectively	71 15 0	72 2 6
Australian spot, and three months respectively	71 2 6	71 10 0
Banca ,, (in Holland)	75 15 0	75 17 6
TIN PLATES: Charcoal, best quality per box	0 14 0	0 16 0
,, ordinary	0 11 3	0 12 0
Coke, best quality	0 10 9	0 11 0
,, ordinary	0 10 0	0 10 3

These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	—	2 1 5¾
,, Scotch pig, No. 1 Gartsherrie	—	2 10 6
,, ,, Coltness	—	2 15 6
,, ,, Clyde	—	2 9 0
,, ,, Govan	—	2 3 0
Bars, Welsh, f.o.b. Wales	—	5 2 6
Plates ,, ,,	—	5 5 0
Bars, Staffordshire, at works	—	5 7 6
Sheets ,, ,,	—	6 10 0
Plates ,, ,,	—	5 7 6
Hoops ,, ,,	—	5 15 0
Ship plates, Middlesborough	—	4 18 9
STEEL: English spring nominal	according to quality 10 0 0	20 0 0
,, ,, cast	35 0 0	60 0 0
,, Rails at works, according to section	3 12 6	5 5 0
Lead.		
Spanish or soft foreign	9 2 6	9 3 9
English pig, common	9 3 9	9 5 0
,, L.B.	—	9 15 0
,, sheet and bar	—	10 2 6
,, pipe	—	10 12 6
,, red	—	12 0 0
,, white	—	16 0 0
,, patent shot	—	13 10 0
Spelter		
Silesian ordinary brands	15 13 9	15 15 0
,, special brands	—	15 17 6
English Swansea	—	16 7 6
Sheet Zinc	18 5 0	18 10 0
Antimony.		
Antimony	—	34 0 0
Quicksilver.		
Flasks, 75 lbs. warrants	£ 6 0 0	5 19 0
Manganese.	per unit.	
Ore, c.i.f., U.K. ports		
1st quality, 50 per cent. and upwards	0 0 10½	0 0 11½
2nd ,, 47 per cent. to 50 per cent.	0 0 9½	0 0 10½
3rd ,, 40 ,, 47 per cent.	0 0 8	0 0 10
Aluminium.		Per lb.
93-95½ per cent. (guaranteed 93 per cent. min.)	in ingots (1 cwt. lots)	0 1 11
do do	(1 ton lots)	0 1 10
Nickel.		
98-99 per cent. guaranteed	0 1 7½	0 1 8½

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on "Cost Book" principles: ‡ in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and †, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price May 25, 1894	Closing Price, May 18, 1894.	Par. £ s.	Latest Dividend	Called up Per Share. £ s. d.	Shares Issued.	Situation of Mine.	Head Office.
Atlas ...T	—	—	1 0	—	1 0 0	12,000	Devon	Camborne.
Blue Hills ...CT	—	—	*	2/- May '81	5 9 6	5,353	Cornwall	Camborne.
Botallack ...T	—	—	*	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea ...T	10 10¼	11	*	2/6 Dec., '93	21 12 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..T	⅝ ⅝	10/-	*	—	35 5 10	4,900	Cornwall	Camborne.
Cumberland ...L	—	—	1 0	5% May, '88	1 0 0	51,988	Cumberland	7, Angel-court E.C.
Derwentwatr. CLZ	—	—	1 0	—	1 0 0	10,500	Cumberland	Manchester.
Devon Gt Cons. CA	20/- 25/-	25/-	5 0	3/- Nov. '93	2 0 0	10,240	Devon	8, Finsbury-circus.
Dolcoath T	72½ 73½	73	*	12/6 Apr. '94	9 12 6	4,700	Cornwall	Camborne
Drakewalls CTM	—	—	5/-	—	0 2 0	61,856	Cornwall	Dashwood House.
EastGrassington L	—	—	1 0	—	1 0 0	19,905	Yorkshire	Palmerston-building
East Pool ...AT	10¼ 10¾	10¾	*	2/- April '94	0 9 9	6,400	Cornwall	Illogan.
Gawton ...CA	—	—	50/-	—	2 7 0	12,000	Devon	20, Great St. Helens.
Great Laxey ...L	1 2	2⅛	4 0	5/- Apr., '92	4 0 0	15,000	Isle of Man	Douglas, Isle of Man.
Green Hurth ...L	1/3 1/9	—	1 0	-/6 June '89	0 19 0	32,000	Cumberland	Newcastle.
Halkyn ...L	—	—	1 0	2/- Sep. '93	1 0 0	10,000	Flintshire	Chester.
Hexworthy ...T	—	—	1 0	—	1 0 0	14,634	Devon	6, Queen-street-place
Isle of Man ...L	—	—	5 0	5/6 Sep. '93	5 0 0	14,000	Isle of Man	Chester.
Killifreth ...T	3⅛ 3⅜	3¼	*	3/6 Dec. '93	5 11 6	6,000	Cornwall	Truro.
Kingside ...LB	—	—	1 0	3/- May, 1892	1 0 0	15,919	Cardiganshire	6 Queen-street-place
Lead Hills ...L	15/- 20/-	22/6	6 0	3/- Sep. '92	6 0 0	20,000	Lanarkshire	30, Finsbury-circus.
Levant ...CT	—	—	*	5/- Dec., '93	11 9 6	2,500	Cornwall	Penzance.
Lovell ...T	—	—	*	1/3 Nov., '91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W
Minera (New) ..L	—	—	5 0	5/6 Mar '90	5 0 0	9,000	Denbighshire.	Minera, N. Wales.
Nenthd&Tndle. LZ	-/6 1/-	—	1 0	6% Feb., '91	0 18 0	48,875	Northumberld	Newcastle-on-Tyne
New Balleswidd'n T	—	—	1 0	—	1 0 0	25,000	Cornwall	St. Clement's Ho., E.C
NewCooksKitn. TC	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
Pedn-an-drea ...T	—	—	*	—	4 3 6	7,000	Cornwall	Redruth.
Phoenix United TC	2/- 4/-	5/-	*	1/- Mar. '90	6 19 6	10,668	Cornwall	Liskeard.
Polberro ...T	25/- 27/6	22/6	*	—	3 6 9	18,000	Cornwall	37, Walbrook.
Prince of Wales TC	2/- 3/-	3/-	10/-	—	0 8 3	94,287	Cornwall	6, Draper's-gardens.
So. Condurrow TC	12/6 17/6	17/6	*	3/6 Apr. '93	17 17 7	6,123	Cornwall	20, Great St Helens
South Crofty TA	1¾ 2¼	2¼	*	—	17 2 6	6,120	Cornwall	Pool, Cornwall.
S. Frances Untd. T	1 1¼	1⅜	*	—	2 7 6	6,000	Cornwall	Redruth.
Tincroft ...T	12½ 13	13	*	2/- Apr. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale ...L	6/6 7/6	9/-	4 0	1/3 Oct. '90	1 10 0	50,000	Durham	3, Lombard-court.
West Frances ...T	1¼ 2	2½	—	2/6 May, '89	15 17 1	6,144	Cornwall	Camborne.
West Kitty ...T	6¾ 6⅛	6⅜	*	4/- Jan, '94	0 12 0	6,000	Cornwall	37, Walbrook.
Wheal Agar ..TA	2¼ 2¾	2½	*	2/6 Aug. '88	23 5 2	6,000	Cornwall	Redruth.
Wheal Basset ...TC	2¾ 3¼	3¼	*	10/- Apr. '88	12 5 0	6,144	Cornwall	Redruth.
Wheal Friendly..T	2/- 4/-	4/-	*	—	0 11 3	10,000	Cornwall	37, Walbrook, E.C.
Wheal Grenville T	17 19	19	*	3/- Feb. '94	18 2 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty ...T	7/6 10/-	7/6	*	3/- Mar. '88	4 5 6	8,190	Cornwall	Truro.
Wheal Metal &F. T	—	—	*	—	0 13 9	16,784	Cornwall	79½, Gracechurch-st

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price May 25, 1894	Closing Price, May 18, 1894.	Par.	Latest Dividend	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
Achilles Gld Fld	1 1¼	1 5/16	1 0	—	1 0 0	80,307	New Zealand	3, Church Pas., E.C.
Aladdins Lamp G	1⅛ 1¼	1 3/16	1 0	1/- Apr. '94	1 0 0	100,000	N S Wales	4-6, Throg. Avenue.
Anglo-Saxon ...G	—	—	1 0	2/- July, '89	1 0 0	51,000	Queensland	4, Lombard-court
Australasian ...G	1/6 2/-	2/3	1 0	-/6 Mar., '92	1 0 0	210,000	Queensland	6, Queen-st. place
Australian ...C	—	—	20 0	1/6 Aug. '93	7 10 0	18,315	So. Australia	15, Old Jewry Chbrs.
Aus. Bro. Hill Con.	2/6 3/-	3/-	1 0	1/- June, '91	1 0 0	540,000	N. S. Wales	Winchester House.
Blue Spur & G. G	-/6 1/-	1/-	1 0	—	1 0 0	75,926	New Zealand	6, Gt St. Helens'
Bonnie Dundee G	3/9 4/3	4/3	1 0	—	0 18 0	120,000	Queensland	3-5 Gracechurch-st
Brilliant Block...G	1⅜ 1½	1½	2 0	-/6 April '94	2 0 0	250,000	Queensland	3, Gracechurch-st.
Brit. Brok. Hill S	3/- 3/6	3/6	5 0	—	5 0 0	240,000	N. S. Wales	Abchurch Chambers
Broken Hill Prop.	2¼ 2 5/16	2⅝	8/-	1/- May '94	0 8 0	960,000	N. S. Wales	Abchurch Chambers
Carrington ...G	2/- 2/6	2/6	12/6	—	0 12 6	100,000	Queensland	9, Tokenhouse Yard.
Craven's Cal.	4/6 5/6	4/6	6/-	-/3 Apr., '94	0 4 8	100,000	Queensland	30-1, S. Swithin's-le.
Croydon King Blk	—	—	5/-	—	0 5 0	60,000	N Queensland	Leadenhall Blg. E.C.
Cumbrind (New) G	-/3 -/9	1/-	1 0	2/6 Dec. '87	1 0 0	200,000	Queensland	Blomfield House E.C.
DayDawn B.&W. G	5/6 6/-	7/-	1 0	-/6 Mar. 93	1 0 0	498,400	Queensland	3-5, Gracechurch st.
Day Dawn P. C. G	3/3 3/9	4/3	1 0	-/6 Apr. '92	1 0 0	490,000	Queensland	Winchester Ho., E.C
Eaglehawk ...G	-/6 1/-	-/9	1 0	—	0 18 9	120,000	Victoria	31, Lombard-street.
Etheridge ...G	—	—	5/-	—	0 5 0	324,290	Queensland	6-7, Queen-street-pl.
Golden Gate ...G	1/- 1/6	1/6	10/-	—	0 10 0	150,000	Queensland	9, Tokenhouse Yard.
Glenrock ...	1/6 2/-	2/3	1 0	—	0 19 6	225,000	N. Zealand	3-5, Queen-st. E.C.
Harrietville ...G	—	—	1 0	-/6 July, '90	1 0 0	146,330	Victoria	6-7, Queen-street-pl.
Kaboonga ...G	1/1½ 1/4½	1/6	10/-	—	0 10 0	500,000	Queensland	30, St. Swithin's-lane
Kangarilla ...S	-/9 1/3	1/3	1 0	—	1 0 0	88,275	So. Australia	68, Coleman-street.
Kapanga ...G	1/- 1/6	1/6	1 0	-/6 Jan. '91	0 18 9	250,000	N Zealand	9, New Broad-street.
Kilkivan ...	1/6 2/-	2/-	1 0	—	0 19 9	81,392	Queensland	4, Coleman-street.
Midas G. F. ...G	—	—	1 0	—	1 0 0	180,000	Victoria	32, Poultry, E.C.
Mills' Day Dawn G	1⅛ 1¼	1 3/16	1 0	-/6 May, '94	0 15 9	300,000	Queensland	3, Gracechurch-st.
Moruya ...GS	—	—	1 0	—	1 0 0	59,235	N. S. Wales	16, St Helen's-place.
Mosman ...G	3/3 3/9	4/-	1 0	-/6 May, '94	1 0 0	185,000	Queensland	3-5, Gracechurch-st.
Mt. Leyshon ...G	-/9 1/3	1/3	1 0	-/6 Dec. '90	1 0 0	157,989	Queensland	7, Draper's-gardens.
Mountain Maid C	—	—	10/-	—	0 6 3	56,000	Queensland	Leadenhall Bldgs.
Mt. Morgan Ex. G	—	2 11/16	5/-	-/6 May, '94	0 2 0	180,000	Queensland	4, Tokenhouse Bldgs
Mt. Shamrock GB	—	—	1 0	—	1 0 0	275,000	Queensland	9, Tokenhouse-yard.
Mount Zeehan ...	-/6 1/-	1/-	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
New Oueen ...G	7/3 7/9	7/9	1 0	-/6 Apr., '94	0 19 6	158,915	Queensland	30, St. Swithin's-la.
Port Phillip ...G	—	—	5/-	—	0 5 0	200,000	Victoria	57, Moorgate-st., E.C.
Queen's Bthdy Un	—	—	1 0	—	0 10 0	—	Victoria	7-8, Gt. Wnchster St.
Queens. Smelting	1/16 ⅛	⅛	0	—	1 0 0	36,244	Queensland	9, Tokenhouse Yard.
ScottishAustralian	15/16 15/16xd	15/16	1 0	4 4-5d. May, '94	1 0 0	200,00	N.S. Wales	Winchester Ho. E.C.
Sunburst ...	—	—	10/-	-/6 Mar. '92	0 10 0	150,000	Queensland	9, Tokenhouse Yard.
Tasmanian Crown	—	—	1 0	—	1 0 0	175,000	Tasmania	8, Old Jewry, E.C.
Tipperary ...	—	—	1 0	—	1 0 0	35,000	N. Zealand	3-5, Queen-st., E.C.
True Blue ...	—	—	1 0	—	1 0 0	53,000	Australia	Leadenhall Blg. E.C.
Victoria ...	—	—	1 0	-/6 Mar. '94	1 0 0	144,000	Char. Towers	6, Crosby-square.
Victory ...G	7/6 8/6	8/6	5/-	—	0 5 0	200,000	Queensland	32, Gresham-st., E.C
Waihi ...G	1⅛ 1⅝	1 11/16	1 0	1/- Jan. '94	1 0 0	150,000	New Zealand	11, Abchurch-ln. E.C
Wentworth Ord. G	5/6 6/6	6/6	1 0	6/- Jan. '93	1 0 0	500,000	N. S. Wales	4-6, Throgmort. Av.

INDIAN AND ASIATIC MINES.

Name.	Closing Price May 25, 1894	Closing Price, May 18, 1894.	Par.	Latest Dividend	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
Balaghat Mysore G	6/6 7/6	9/-	1 0	—	0 17 0	160,000	India	6-7, Queen-street-pl.
Burma Ruby ...R	3/6 4/-	4/-	1 0	—	0 16 0	300,000	Burmah	Suffolk House, E.C.
ChampionReef...G	3 15/16 4 1/16	4	1 0	—	1 0 0	200,000	India	6-7, Queen-street-pl.
Colar Central ..G	-/3 -/6	-/6	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel ...G	¼ 5/16	5/16	1 0	—	0 12 6	120,000	India	6-7, Queen-st.-place.
Devála Moyar ...G	—	—	1 0	—	1 0 0	200,000	India	34, Nicholas-lane.
Gemming&Mining	—	—	2 0	—	1 7 6	24,456	Ceylon	183, Gresham House.
GoldFldsMysore G	23/9 24/3	1 3/16	1 0	1/- July '92	1 0 0	220,000	India	6-7, Queen-street pl.
Gold Flds Siam G	—	—	1 0	—	1 0 0	150,000	Siam	19, St. Swithin's-lane.
Hyderabad Dec. ..	5⅜ 5⅝	—	10 0	—	10 0 0	1,000,000	Deccan	16, St. Helen's-place.
Kempinkote GdFd	1/6 1/9	1/9	5 0	—	0 3 0	698,650	India	6-7, Queen-st.-place.
Mysore ...G	2 15/16 3 1/16	3⅛	1 0	3/- Mar, '94	1 0 0	225,000	India	6-7, Queen-street pl.
Mysore Reefs ...G	12/6 13/6	11/-	1 0	—	0 10 0	200,000	India	6-7, Queen-street-pl.
Mysore West ...G	3/9 4/3	4/-	1 0	—	1 0 0	130,000	India	Dashwood Ho., E.C.
Mysore Wynaad G	1/3 1/6	1/9	1 0	—	1 0 0	250,000	India	Dashwood Ho., E.C.
Nine Reefs ...G	1/9 2/3	2/3	10/-	—	0 10 0	250,000	India	6-7, Queen-street-pl.
Nerbudda Coal &In	—	—	3 0	—	2 11 0	49,638	India	213, Gresham House.
Nundydroog ...G	19/6 20/6	22/-	1 0	1/- Mar. '94	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Df.O.) C	4⅜ 4⅝	4⅝	1 0	4/- Mar., '94	1 0 0	145,000	India	6-7, Queen-street-pl.
Do. (10% Pref.).	5 5⅛	5¼	1 0	4/- Mar., '94	1 0 0	120,000	India	6-7, Queen-street-pl.
Pahang Corpn. ...	—	—	1 0	15% Apr. '89	1 0 0	200,000	Malay Penin.	Blomfield Ho., E.C.
Pahang Kabang...	—	—	1 0	—	1 0 0	394,760	Malay Penin.	4a, Jeffrey's sq., E.C.
South E. Mysore G	4/9 5/3	5/6	4/-	—	0 3 9	133,074	India	6-7, Queen-street-pl.

EUROPEAN MINES.

Name.	Closing Price May 25, 1894	Closing Price, May 18, 1894.	Par.	Latest Dividend	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
Alamillos ...L	⅜ ⅝	⅝	2 0	-/3 Sept. '92	2 0 0	35,000	Spain	6, Queen-street-place
Argentella ...C	—	—	1 0	—	1 0 0	133,165	Corsica	16, Philpot-lane.
English Cr. Spelter	—	—	1 0	5% Dec. '92	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ...L	⅜ ⅜	⅝	2 0	-/6 Sept. '92	2 0 0	25,000	Spain	6, Queen-street-place
Libiola ...C	2⅞ 3⅛	3¼	5 0	5/- Mar. '94	5 0 0	50,400	Italy	Dashwood Ho., E.C.
Linares ...L	2¾ 3	3⅛	3 0	4/- May, '94	3 0 0	14,998	Spain	6, Queen-street-place
Marbella ...I	58/-	58/-	10 0	8/- Mar. '93	10 0 0	25,000	Spain	78, Queen Victoria-st.
Mason & Barry...C	2¾ 3¼	2 9/16 xd	5 0	2/- May. '94	5 0 0	185,172	Portugal	87, Cannon-street.
Oscar ...G	—	—	5 0	—	0 4 6	117,240	Norway	6a, Austin Friars.
Pestarena ...G	2/- 2/6	2/6	3 0	—	3 0 0	67,208	Italy	6-7, Queen-street-pl.
Pontgibaud ...L	—	—	20 0	11/5 Dec. '93	20 0 0	14,000	France	6-7, Queen-street-pl.
Rio Tinto ...C	4 11/16 4 13/16	4 11/16	10 0	7/- Apr., '94	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	103⅜ 104¼	104⅜	100 0	5% Apr. '94	100 0 0	2,158,980	Spain	30, St. Swithin's-lane
Do. (2nd do.) ...	101½ 102⅛	102⅛	100 0	5% Apr. '94	100 0 0	1,127,180	Spain	30, St. Swithin's-lane
Ripanji ...SQ	7/- 9/-	9/-	1 0	—	0 19 0	95,000	Servia	120, Bishopsgt-st, Wn.
Tharsis ...C Sul	4⅛ 4⅜	4¼	2 0	12½% Mar. '94	2 0 0	625,000	Spain	Glasgow.
West Prussian Pre.	—	—	10 0	8% Mar. '94	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	—	—	10 0	8% Mar. '94	10 0 0	14,050	Germany	Walbrook Ho., E.C.

NORTH AMERICAN MINES.

Name.	Closing Price, May 25, 1894	Closing Price, May 18, 1894.	Par. £ s.	Latest Dividend.	Called up per Share. £ s. d	Shares Issued.	Situation of Mine.	Head Office.
Almeda and T.. S	-/3 -/9	-/9	2/6	—	0 2 6	351,008	Mexico	6, Queen-street-place
American Belle...S	1/9 2/3	2/-	1 0	-/6 Mar. '91	1 0 0	400,000	Colorado	25a, Old Broad-street.
Big Creek	—	—	1 0	1/- Dec. '91	1 0 0	80,038	Nevada	2, Pancras-lane, E.C.
California	—	—	10/-	-/6 May '90	0 3 9	129,571	Colorado	St. George's Ho E.C.
Canadian Phos. P	—	—	1 0	-/6 Nov. '90	1 0 0	73,334	Canada	155, Fenchurch-st.
Chiapas	—	—	1 0	—	1 0 0	221,876	Mexico	33, Broad-st. Av. E.C.
Colorado Silver...S	—	—	1 0	—	1 0 0	112,491	Colorado	Abchurch-chbrs. E.C
Cortez	—	—	1 0	3% Feb. '93	1 0 0	300,000	Nevada	Suffolk House, E.C.
De Lamar ...GS	17/- 18/-	19/-	1 0	1/- April 94	1 0 0	400,000	Idaho	6, Draper's-gardens.
Dickens Custer GS	—	—	1 0	—	0 19 9	420,000	Idaho	Winchester Ho. E.C.
Elkhorn ...S	11/6 12/6	13/-	1 0	-/9 Mar. '94	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma ...S	-/3 -/6	-/6	5 0	—	0 5 0	367,788	Utah	15, Geo-st, Mansn. Ho
Flagstaff ...S	-/3 -/6	-/6	1 0	—	0 18 3	240,000	Utah	Dashwood Ho., E.C.
Garfield ...GS	—	—	1 0	-/6 Dec. '88	0 19 6	98,185	Nevada	Suffolk House, E.C.
Golden Feather G	7/6 8/6	10/-	1 0	—	1 0 0	180,000	California	S. Stephens Cs E.C.
Golden Gate ...	5/6 6/6	7/-	1 0	—	0 19 0	79,600	California	St Stephens Cs E.C.
Golden Leaf ...G	-/9 1/3	1/3	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Golden Valley ..G	—	—	1 0	—	1 0 0	55,507	Colorado	15, Angel Court.
Harquahala ...G	14/6 15/6xd	16/-	1 0	-/6 Apr. '94	1 0 0	300,000	Arizona	6, Draper's Gardens.
Holcomb Valley G	-/10½ 1/1½	1/3	5 0	-/9 Oct. '93	0 5 0	300,000	California	14, Cornhill E.C.
Idaho ...GS	1/3 1/9	1/9	1 0	—	0 4 8	143,439	Idaho	140, Leadenhall-st.
Jackson Goldfields	—	—	5 0	—	0 5 0	408,635	California	6, Drapers' Gardens.
Jay Hawk ...G	6/6 7/6	7/6	1 0	-/6 Dec. '92	1 0 0	285,000	Montana	Dashwood House.
Kohinoor "B" GS	—	—	1 0	-/6 June. '81	1 0 0	112,901	Colorado	Blomfield Ho., E.C.
La Plata ...S	-/5 -/8	-/8	5/-	1/3 Oct. '82	0 4 3	405,000	Colorado	11, Poultry, E.C.
Maid of Erin	—	—	1 0	4c. psh Mar. '94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold	-/6 1/-	1/-	1 0	—	1 0 0	400,000	Pinal Arizona.	257, Winchester Ho.
Mesq. d'l Oro (P) G	½ 1	1	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Mesq. d'l Oro (D) G	⅛ ⅜	⅜	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C
Montana	5/- 5/6	6/-	1 0	5% April '91	0 19 0	657,150	Montana	Gresham House, E.C
New Colorado	—	—	1 0	—	0 17 0	65,000	Colorado	Abchurch Cham E.C
N. Consolidated SC	—	—	1 0	—	1 0 0	160,000	Eberhardt, U.S	19a, Coleman-street.
N. Eberhardt ...S	—	—	5/-	—	0 3 6	248,576	Nevada	15, Angel-court, E.C.
N. Gold Hill ...G	—	—	1 0	—	0 19 9	191,045	N. Carolina	15, George-st., E.C.
New Guston ...S	9/16 11/16	11/16	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25a, Old Broad-st.
New London	—	—	2/6	—	0 2 6	327,816	New Carolina	55, Bishopsgt.-st. Wn
N. Hoover Hill ...G	—	—	10/-	-/9 Dec. '85	0 10 0	120,000	N. Carolina	Langthorne Ho., E.C
New Vancouver ...	—	—	1 0	3% May, '94	1 0 0	215,000	Brit. Columbia	12, Old Jewry Chm.
Palmarejo ...GS	1/- 1/6	1/6	1 0	—	1 0 0	438,888	Mexico	4, Copthall-buildings
Pinos Altos (N) GS	6/6 7/6	7/6	1 0	-/6 Mar. '90	1 0 0	160,000	Mexico	110, Cannon-street.
Pittsbg Con. (N) G	—	—	1 0	1/6 Mar. '88	1 0 0	77,147	Nevada	Suffolk House, E.C
Poorman Con. ...	8/- 8/6	9/6	5/-	—	0 5 0	273,948	Idaho	5, Copthall-bigs. E.C
Red Mountain ...S	—	—	1 0	—	1 0 0	46,686	Colorado	11, Poultry, E.C.
Richmond ...GSL	7/- 9/-	7/16	5 0	1/- Sep. '93	5 0 0	54,000	Nevada	44, Coleman-street.
Ruby ...GSL	—	—	5/-	—	0 5 0	221,371	Nevada	22 St. Mary Axe.
Sierra Buttes ...G	8/- 10/-	10/-	2 0	-/6 Apr. '94	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. G	⅝ ¾	¾	2 0	-/9 Apr. '94	2 0 0	140,265	California	138, Leadenhall-st.
Springdale ...G	2/- 2/6	2/9	$1	16⅔% Dec. '92	$1	1,000,000	Colorado	20, Abchurch Lane.
United Mexican S	1/- 1/6	1/6	1 0	2/6 May, '87	1 0 0	906,654	Mexico	3, Gt. Winchester-st.
Viola (New) ...	—	—	1 0	—	1 0 0	150,000	Idaho	Broad-st. House, E.C.

SOUTH AND CENTRAL AMERICAN MINES.

Name.	Closing Price, May 25, 1894	Closing Price, May 18, 1894.	Par.	Latest Dividend.	Called up per Share.	Shares Issued.	Situation of Mine.	Head Office.
Antio. (Pref.) G.S.	—	—	1 0	-/6 Mar. '90	1 0 0	22,823	Colombia	184, Gresham House
Antioquia (ordiny)	—	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham House
Callao Bis ...G	-/9 1/-	1/-	1 0	—	1 0 0	316,248	Venezuela	50, Old Broad-street.
Camarones ...C	—	—	2 0	—	2 0 0	67,000	Chili	123, Bishopsgt. Wn.
Caratal ...G	-/5 -/7	-/7	2 6	—	0 2 4	1,330,000	Venezuela	57, Moorgate-st. E.C
Colon ...G	-/6 1/-	1/-	1 0	—	1 0 0	200,000	Colombia	5, Copthall-bdgs., E.C.
Colorado Nit. ...N	3 3¼	3¼	5 0	7/6 May, '89	5 0 0	32,000	Chili	12, King-st., Liverp'l.
Colombian Hy. G	15/6 16/6	16/-	1 0	1/- April '94	1 0 0	75,000	Colombia	10, Blomfield-street.
Copiapo ...C	1 9/16 1 11/16	1 11/16	2 0	2/- Dec. '93	2 0 0	100,000	Chili	Dashwood House, E.C
Darien ...G	2/- 3/-	3/-	1 0	—	1 0 0	71,359	Colombia	Manchester.
Don Pedro ...G	2/6 3/-	2/6	1 0	—	1 0 0	133,102	Brazil	24-5, Devonsh. Cs E.C
El Callao ...G	⅞ 1⅛	1⅛	5 0	2 frs. Nov. '90	5 0 0	257,600	Venezuela	8, Bishopsgt.-st, Wn.
Frontino & B. ...G	21/- 22/-	1 3/16	1 0	1/6 Dec. '93	0 18 6	128,662	Colombia	184, Gresham House.
Glenrock ...G	1/6 2/-	2/3	1 0	—	0 18 6	199,948	Argen. (& Ind)	3-5, Queen-street, E.C
Glenrock (Pref.) ...	—	—	1 0	—	0 16 0	16,232	Argen. (& Ind)	3-5, Queen-street, E.C
Gravel ...G	6/- 7/-	6/9	1 0	—	0 19 6	100,000	Colombia	10, Blomfield-street.
Javali ...G	—	—	2/-	8⅓% '91	0 2 0	105,234	Nicaragua	139, Cannon-street.
Julia Nit. ...N	4/6 5/-	5/-	5 0	—	5 0 0	30,000	Chili	79½, Gracechurch-st.
Lautaro ...N	4¼ 4½	4⅝	5 0	5/- Jan. '94	5 0 0	55,000	Chili	70, Gracechurch-st.
Liverpool ...N	—	—	5 0	10/- Feb. '94	5 0 0	22,000	Chili	Liverpool.
Loma ...G	-/9 1/3	1/3	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building.
London Nit. ...N	—	—	3 0	3/4¾ Nov. '89	5 0 0	10,000	Chili	9, Gracechurch-st.
LondonNit. (Pref.)	—	—	5 0	5/- May, '94	5 0 0	22,000	Chili	9, Gracechurch-st.
Macate ...	2/- 3/-	3/-	2/-	—	0 1 0	—	Peru	11, Old Broad-st, E.C
Orita ...G	2/3 2/9	2/6	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street.
Ouro Preto ...G	—	—	1 0	—	0 18 6	80,000	Brazil	6, Queen-street-place
Panulcillo ...C	—	—	2 0	1/- Nov. '89	2 0 0	112,500	Chili	23, Great St. Helens
Primitiva ...N	3⅝ 3⅞	4	5 0	2½% Oct. '89	5 0 0	40,000	Chili	Liverpool.
Quebrada ...C	⅛ ⅜	¾	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	38, Nicholas Lane.
Rosario ...N	4⅜ 4⅝	4½	5 0	3/6 Feb. '94	5 0 0	120,000	Chili	57¼, Old Broad-street.
Rosario (5% Deb.)	—	—	100 0	6% Apr. '94	100 0 0	4,750	Chili	57¼, Old Broad-street.
St. John del Rey G	23/- 24/-	23/-	1 0	10% June '82	1 0 0	273,435	Brazil	28, Tower-chmbrs, E.C
San Donato ...N	1½ 2	1⅞	5 0	—	5 0 0	32,000	Chili	12, King-st., Liverp'l.
San Jorge ...N	5⅝ 5⅞	5⅞	5 0	10/- May '94	5 0 0	75,000	Chili	9, Gracechurch-st.
San Pablo ...N	3⅝ 3⅞	4	5 0	7½% Apr., '94	5 0 0	32,000	Chili	3, Gracechurch-st.
Santa Barbara ...G	—	—	10/-	1/3 Dec. '86	0 10 0	60,000	Brazil	Liverpool
Santa Luisa ...N	—	—	10 0	10/- Sep. '89	10 0 0	22,000	Chili	70, Gracechurch-st.
Santa Rita ...N	3⅜ 3⅝	3⅝	5 0	15% Apr., '94	5 0 0	20,000	Chili	Dashwood House, E.C
San Sebastian ...N	1⅞ 2⅛	2¼	5 0	1/6 May '94	5 0 0	29,000	Chili	Dashwood House, E.C
Segovia ...G	—	—	5 0	—	0 4 0	160,000	Colombia	5, Copthall-buildings
Tetuan ...G	—	—	1 0	—	0 19 6	200,000	Colombia	5, Copthall-buildings
Tolima "A" ...S	7¾ 8¼	8	1 0	10/- Mar. '94	5 0 0	14,000	Colombia	18, Finsbury-circus.
Vic. & Altamira ...	—	—	5/-	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
W. Argentine ...G	1/3 1/9	—	1 0	—	0 19 6	150,000	Argentine	3-5, Queen-street.
West Indian ...G	—	—	5/-	—	0 5 0	700,000	San Domingo	49, Queen Victoria-st.
Zaruma ...G	—	—	5/-	—	0 5 0	261,422	Ecuador	1, Gt. Winchester-st.

AFRICAN MINES.

Name.	Closing Price, May 25, 1894	Closing Price, May 18, 1894.	Par.	Latest Dividend.	Called up per Share.	Shares Issued.	Situation of Mine.	Head Office.
Afrikander ...G	1 1⅛	1⅛	1 0	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lane
Agnes Block ...G	7/16 9/16	9/16	1 0	—	1 0 0	78,507	Transvaal	54, Old Broad-street.
Aurora ...G	⅜ ½	½	1 0	5% Mar. '93	1 0 0	65,000	Witwatersrdt.	8, Old Jewry.‡
AuroraWest, New G	5/16 ⅜	⅜	1 0	5% Mar., '93	—	80,000	Witwatersrdt.	1, Crosby Square.‡
Balkis Eersteling...	-/4½ -/7½	-/7½	10/-	—	0 9 0	520,000	Transvaal	85, Gracechurch-st.
Balkis Land ...	1/9 2/-	2/3	10/-	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
Banket ...G	-/9 1/3	1/3	1 0	—	1 0 0	200,000	Witwatersrdt.	Johannesburg.
Bantjes Reef ...G	13/- 14/-	14/6	1 0	—	1 0 0	83,000	Witwatersrdt.	Warnford-court.†‡
Barrett...(New)...G	1/6 2/-	2/3	1 0	—	0 9 0	207,498	De Kaap	17, Basinghall-street.
Bechuanaland Exp.	28/- 29/-	29/6	1 0	—	1 0 0	200,000	Bechuanaland	19, St. Swithin's-lane.
Black Reef (New)...	6/6 7/6	7/6	1 0	—	1 0 0	76,000	Witwatersrdt.	9, King William st.‡
Block "B" Lang.	8/6 9/-	7/6	1 0	—	1 0 0	535,000	Witwatersrdt.	8, Princes-st. E.C.‡
Booysen Land ...	⅜ ⅜	⅜	1 0	—	1 0 0	95,000	Transvaal	4, Tokenhouse-bldg.
Cape Copper ...C	1¼ 1¼	1 5/16	2 0	1/3 Jan. '94	2 0 0	300,000	Cape Colony	9, Queen-street-place.
Do. 6% Pref.	2 2⅛	2⅛	2 0	—	2 0 0	45,000	Cape Colony	9 Queen-street-place.
Con. Montrose... G	2/- 3/-	3/-	1 0	—	0 17 0	149,000	Transvaal	10, Throgmorton Av.
Champ d'Or ...G	1 5/16 1 7/16	1 7/16	1 0	—	1 0 0	116,016	Witwatersrdt.	8, Old Jewry, E.C.
City and Suburb. G	13⅜ 13⅝	13⅜	1 0	25% Mar. '94	1 0 0	75,000	Witwatersrdt.	1, Crosby Square.‡
Coetzeestroom ...G	1/- 2/-	2/-	0 5	—	0 4 6	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	27/6 28/-	28/-	1 0	5% Nov. '89	1 0 0	721,500	Griqualand W	62, Lombard-st.
Con. Deep Levels G	2 2⅛	1 15/16	1 0	—	1 0 0	187,250	Transvaal	30, St. Swithin's-lane.
Con. G. Fields S A.	2¼ 2⅜	2 7/16	1 0	10% Nov. '93	1 0 0	1,250,000		8, Old Jewry.
Crœsus (New) ...G	1¼ 1⅜	1 7/16	1 0	5% May, '92	1 0 0	195,000	Witwatersrdt.	66, Gresham-street.
Crown Reef ...G	9¼ 9½	9½	1 0	25% May '94	1 0 0	120,000	Witwatersrdt.	23, Austin Friars.‡
De Beers Consol. D	16⅜ 16⅞	16 13/16	5 0	12/6 Feb. '94	5 0 0	789,791	Transvaal	62, Lombard-street.
Do. 5½% 1st Deb.	105⅜ 106¼	106	—	5½% Feb. '94	—	1,875,000	—	—
Do. 5½% 2nd Deb.	106½ 106⅞	105¼	—	5½% Jan. '94	—	1,647,000	—	—
Do. 5½% Bul Ob.	102¼ 103	100¾	—	5½% Apr. '94	—	720,100	—	—
Durban Roodept. G	5⅜ 5⅞	5⅝	1 0	15% Mar. '94	1 0 0	125,000	Witwatersrdt.	28, Leadenhall-bldgs‡
East Rand ...	12/6 13/-	11/3	1 0	—	1 0 0	570,000	Witwatersrdt.	170, Winchester-ho.‡
Evelyn ...G	—	—	1 0	10% Jan. '89	1 0 0	66,000	Witwatersrdt.	28, Old Jewry, E.C.
Exploring Co. ...	4¼ 4⅝	4⅜	1 0	—	0 4 0	148,000	—	19, S. Swithin's-ln.
Exploration ...	1⅛ 1¼ pm	1⅜ pm	1 0	—	1 0 0	70,000	—	—
Ferreira ...G	7¼ 7⅝	7½	1 0	60% Jan. '94	1 0 0	45,000	Witwatersrdt.	29, Holborn Viaduct.‡
Forbes Reef (Nw) G	5/- 6/-	6/-	1 0	—	0 19 0	105,000	De Kaap	45-6, Leadenhall-st.
Geldenhuis Deep G	3 5/16 3 7/16	3¼	1 0	—	1 0 0	265,000	Transvaal	30, St. Swithin's-lane.
Geldenhuis Est. G	5¼ 5⅜	5	1 0	10% Mar. '93	1 0 0	187,500	Witwatersrdt.	29 & 30, Hol. Viaduct.
Do. Main Reef	10/6 11/-	10/6	1 0	—	1 0 0	150,000	Witwatersrdt.	Warnford-court, E.C‡
George and May...	20/- 25/-	25/-	1 0	—	—	105,000	Witwatersrdt.	Warnford Court, E.C
George Goch ...G	—	—	1 0	—	1 0 0	100,000	Witwatersrdt.	Johannesburg.
Glencairn ...G	32/- 33/-	32/6	1 0	—	1 0 0	200,000	Witwatersrdt.	2, Drapers-gardens.
Gold Estates T... G	3/6 4/6	4/6	1 0	15% Dec. '89	0 10 0	130,000	Transvaal	46, Queen Victoria-st.
G. F. of Mashonld.	⅞ 15/16	⅞	1 0	—	1 0 0	200,000	Mashonaland	19, St. Swithin's-ln.
Grahamstown ..G	9/6 10/6	10/6	1 0	—	1 0 0	150,000	Witwatersrdt.	14, Throgmorton-st.
Graskop ...G	1/3 1/9	1/9	0 5	3¾% Mar. '92	0 5 0	500,000	Lydenburg	85, Gracechurch-st.
Griqualand W ...D	6¾ 7⅛	7⅛	10 0	—	10 0 0	105,700	Transvaal	62, Lombard-street

"THE MINING JOURNAL" SHARE LIST (African Mines continued).

Name.	Closing Price, May25, 1894.	Closing Price, May 18, 1894.	Par.	Latest Dividend.	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Henry Nourse ...G	2 13/16	2 15/16	2½	1 0	—	1 0 0	100,000	De Kaap ..... Warnford-court.†
Heriot (New) ...G	4	4 1/16	3⅜	1 0	—	1 0 0	195,000	Paarl Central ... G 15/16 1 Witwatersrdt. 1, Crosby Square.†
Joe's Luck ..... G	1/6	1/9	1/9	1 0	—	1 0 0	57,404	Piggs Peak, New G 3/- 4/- De Kaap ..... 11, Queen Vic.-st.
Johannesburg Pnr	3¼	3⅝	3¼	1 0	12½% Nov.,'93	1 0 0	2,000	Potchefstoom ... G 1/9 2/3 Witwatersrdt. Johannesburg.
Jubilee ..... G	5¾	6¼	6¾	1 0	30% Apr. '94	1 0 0	30,000	Princess Estate G 15/16 1 Witwatersrdt. 8, Old Jewry.†
Jumpers ..... G	4	4¼	4	1 0	10% Jan. '93	1 0 0	100,000	Randfontein ..... G 15/6 16/- Witwatersrdt. 29, Holborn Viaduct.††
Kimberley ..... D	¾ pm	¾ pm	¾ pm	1 0	—	10/-	98,672	Read's Drift ..... D 9/8 10/6 Kimberley ... 19, Finsbury circus.
Kleinfontein (N) G	1⅝	1⅝	33/9	1 0	—	1 0 0	150,000	Robinson ..... G 6 6¼ Witwatersrdt. 8, Old Jewry.
Klerksdorp .... G	2/-	3/-	3/-	1 0	—	1 0 0	1-0 007	Roodepoort Un. G 2¾ 2¾ Transvaal ... 110, Cannon-street.
Knight ..... G	¾	15/16	15/6	1 0	—	1 0 0	250,000	St. Augustine ...D — — Witwatersrdt. 19, Bury-street, E.C.
Langlaagte Est. G	4¼	4⅛	4¼	3 0	12½% Mar.,'94	1 0 0	467,000	Salisbury New ...G 2⅜ 2¼ Witwatersrdt. 59, Holborn Viaduct.†
Do. Royal	2⅝	2¾	—	1 0	5% Sept. '93	1 0 0	100,000	Sheba ..... G 28/- 28/6 Witwatersrdt. 2 Drapers-gardens.†
Lisbon-Berlyn .. G	3/-	3/6	3/6	2 6	—	0 2 6	884,233	Sliati ..... G 3/- 3/6 Lydenburg ... 110, Cannon-street.
Luipaard's Vlei Est.	11/-	12/-	10/6	1 0	6% Mar. '90	1 0 0	319,693	Slimmer & Jack...G 7 7½ Witwatersrdt. Warnford-court.†
Do. do. do.	⅛	¼	—	1 0	—	0 10 0	25,000	S.A. Gold Trust ... 15/6 16/6 Witwatersrdt. 8, Old Jewry.
Main Reef (New) G	⅜	1	1	1 0	—	0 10 0	300,000	Spitzkop (New) G 2/6 3/- Witwatersrdt. 8, Old Jewry.
May Consol. ..... G	9/6	10/6	10/-	1 0	—	1 0 0	430,000	Stanhope ..... G 1¾ 1 13/16 Witwatersrdt. 4, Lothbury.†
May Deep Level G	9/-	10/-	9/6	1 0	—	1 0 0	148,000	Sutherland R. ...G 4/- 5/- Witwatersrdt. 33, Cornhill, E.C.
Metropolitan (N) G	9/16	11/16	11/16	1 0	—	1 0 0	75,000	Teutonia ..... G — — Witwatersrdt. 1, Crosby Square.†
Meyer & Charl....G	5⅜	5¾	5½	1 0	25% Dec. '93	1 0 0	71,687	Trans. Coal Trust... 11/9 12/3 Witwatersrdt. Warnford-court.†
Modderfontein G	11/6	12/6	9/6	1 0	—	1 0 0	200,000	Trans. Est. & Dev. 9/6 10/6 Witwatersrdt. Warnford-court.†
Moodies G.&E....G	7/-	8/-	9/-	1 0	-/4 May '90	1 0 0	120,000	Trans. Gold ..... G 1 15/16 2 1/16 De Kaap ..... 8, Old Jewry.†
Moodies (15/- p.)G	4/-	5/-	5/-	1 0	—	0 15 0	120,000	Trans. Land (15/-) 6/6 7/6 De Kaap ..... 8, Old Jewry.†
Namaqua C	⅜	⅝	⅝	2 0	2/6 July '91	2 0 0	194,351	Treasury..... G — — Namaqualand ... 54 Leadenhall-bldg.
New Chimes..... G	1 15/16	2 1/16	2¼	1 0	—	1 0 0	70,000	Un. Ivy Reef.....G 1 1/16 ⅝ Witwatersrdt. 8, Old Jewry. E.C.
New Clewer Estate	1	1⅛	—	1 0	—	1 0 0	100,000	Un. Langlaagte .. 1 1/16 1 3/16 Lydenburg ... 29-31, Holborn-viadt.
New Croesus..... G	1⅜	1⅜	1 5/16	1 0	5 % Aug. '93	1 0 0	195,000	Van Ryn ..... G 10/- 11/- Langlaagte 4, Bishopsgt.-st, Wt.
New Jagersf. ...D	15¾	15⅝	15⅞	10 0	5% Mar., '94	10 0 0	100,000	Victory Hill ....G — — Transvaal ..... 5, Copthall-buildings
New Primrose ...G	4⅛	4⅜	4¼	1 0	4/- July, '93	1 0 0	230,000	Village Main Reef 3 15/16 4 1/16 Witwatersrdt. 2, Draper's-gardens.
New Rietfontein G	1⅛	1⅝	1⅝	1 0	—	1 0 0	160,000	Virginia (New)...G 2/9 3/3 Witwatersrdt. Warnford-ct., E.C.
Nigel ..... G	2 13/16	2 15/16	2¾	1 0	10% Mar. '94	1 0 0	160,000	Wemmer ... ...G 4¼ 4⅜ Witwatersrdt. 1, Crosby-square.
Nooitgedacht E. G	—	—	—	1 0	—	1 0 0	160,000	Witwatersrandt ... 14/6 15/6 Lydenburg .. 8, Old Jewry.
								Wolhuter ..... G 3 1/16 3 1/16
Oceana	1 15/16	2 1/16	2	1 0	25/- Nov. '89	1 0 0	150,000	Transvaal ..... 4, Sun Court, E.C. Wolverand..... G 8/- 7/-
Ophir Concess. ...	-/9	1/3	1/9	1 0	—	0 18 6	111,857	E. CoastAfrica 31, Lombard-street. Worcester ..... G 1 15/16 2 1/16
Orange F.S.E. ...D	4¼	4¾	4¾	1 0	—	1 0 0	234,000	OrangeF.State 10, Moorgate-street. Zambesia Explors. 2¾ 2¾

Name.	Closing Price, May 25, 1894.	Closing Price, May 18, 1894.	Par.	Latest Dividend.	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Otto's Kopje.....D	1/3	1/9	1/10½	1 0	—	0 19 3	437,885	Kimberley ... 113, Cannon-st.,E.C.
Paarl Central ... G	15/16	1	19/-	1 0	—	1 0 0	138,750	Transvaal ..... 29-30, Hol. Via., E.C.
Piggs Peak, New G	3/-	4/-	4/-	1 0	—	0 16 6	230,326	Swaziland ... 6, Queen-street-place
Potchefstoom ... G	1/9	2/3	2/6	1 0	—	1 0 0	161,000	Potchefstroom 19, Bury-st., E.C.
Princess Estate G	15/16	1	20/-	1 0	—	1 0 0	72,046	Witwatersrdt. 33, Cornhill, E.C.
Randfontein ..... G	15/6	16/-	14/6	1 0	—	1 0 0	1,916,500	Witwatersrdt. 59, Holborn Viaduct.†
Read's Drift ..... D	9/8	10/6	10/-	1 0	—	—	50,000	Transvaal ..... 19, Finsbury circus.
Robinson ..... G	6	6¼	5⅞	5 0	4% June '93	5 0 0	543,750	Transvaal ..... 55, Holborn Viaduct††
Roodepoort Un. G	2¾	2¾	2 5/16	1 0	—	1 0 0	100,000	Witwatersrdt. Warnford-court.†
St. Augustine ...D	—	—	—	1 0	—	1 0 0	465,000	Griqualand W 30-1, St, Swithin's-la
Salisbury New ...G	2⅜	2¼	2⅛	1 0	—	1 0 0	93,000	Witwatersrdt. 1, Crosby-square.†
Sheba ..... G	28/-	28/6	23/6	1 0	-/6 April '94	1 0 0	614,450	Lydenburg ... 85, Gracechurch-st.
Sliati ..... G	3/-	3/6	3/9	1 0	—	0 16 0	625,000	Zoutpansberg. 4, Sun Court, E.C.
Slimmer & Jack...G	7	7½	6¾	1 0	10% May '94	1 0 0	85,000	Witwatersrdt. 33, Cornhill.
S.A. Gold Trust ...	15/6	16/6	17/6	1 0	10% April '93	0 10 0	220,000	South Africa.. 8, Old Jewry.
Spitzkop (New) G	2/6	3/-	3/-	1 0	—	0 19 6	144,531	Lydenburg ... 15, Bishopsgt-st, Wt.
Stanhope ..... G	1¾	1 13/16	1 13/16	1 0	50% May. '93	—	34,000	Witwatersrdt. 1, Crosby Square.†
Sutherland R. ...G	4/-	5/-	4/6	1 0	—	0 18 6	220,000	Zoutpansberg. 3, Budge-row, E.C.
Teutonia ..... G	—	—	—	1 0	—	1 0 0	96,000	Witwatersrdt. 8, Old Jewry.
Trans. Coal Trust...	11/9	12/3	12/6	1 0	-/8 Oct, '93	1 0 0	439,965	Witwatersrdt. Broad- t. House, E.C
Trans. Est. & Dev.	9/6	10/6	10/6	1 0	—	1 0 0	285,700	Transvaal ..... 76, Old Broad-st. E.C.
Trans. Gold ..... G	1 15/16	2 1/16	1 15/16	1 0	1/- Dec, '93	1 0 0	250,000	Transvaal ..... Suffolk House, E.C.
Trans. Land (15/-)	6/6	7/6	—	1 0	—	0 15 0	169,999	Transvaal ..... 33, Cornhill.
Treasury..... G	—	—	—	1 0	7½% May '94	1 0 0	26,000	Witwatersrnt. Johannesburg.
Un. Ivy Reef.....G	1 1/16	⅝	17/6	1 0	—	1 0 0	45,000	Transvaal ..... 110, Cannon-street
Un. Langlaagte ..	1 1/16	1 3/16	15/-	1 0	—	1 0 0	100,000	Witwatersrdt. 23, St. Swithin's-la.
Van Ryn ..... G	10/-	11/-	15/-	1 0	—	1 0 0	99,810	Witwatersrdt. 1, Crosby-square.†
Victory Hill ....G	—	—	—	1 0	—	1 0 0	108,000	De Kaap ..... Portland House, E.C.
Village Main Reef	3 15/16	4 1/16	4⅛	1 0	—	1 0 0	132,000	Witwatersrdt. 8, Old Jewry.
Virginia (New)...G	2/9	3/3	3/3	1 0	—	8/-	48,335	Transvaal ..... 26, Budge-row, E.C.
Wemmer ... ...G	4¼	4⅜	4⅜	1 0	10% Nov. '91	1 0 0	55,000	Witwatersrdt. 19, Bury-street,††
Witwatersrandt ...	14/6	15/6	15/6	1 0	—	1 0 0	250,000	Witwatersrdt. 19, Bury-st., E.C.
Wolhuter ..... G	3 1/16	3 1/16	3½	1 0	2/- Apr., '94	1 0 0	120,000	Witwatersrdt. Warnford-court.†
Wolverand..... G	8/-	7/-	—	1 0	—	0 16 0	102,083	Transvaal..... 5, Co thall-buildings
Worcester ..... G	1 15/16	2 1/16	2½	1 0	10% May '94	1 0 0	90,727	Witwatersrdt. 8, Old Jewry.†
Zambesia Explors.	2¾	2⅞	3	1 0	—	1 0 0	45,000	Transvaal ..... 13, George-st., E.C.

MINING IN THE MIDLANDS.

WE have in the report, issued on Saturday, of Mr. A. H. Stokes, the Inspector of Mines for the Midland district (No. 3), for the year, 1893, an official account of the great coal strike of last year, and some impartial figures, which would have been useful at the time as a basis on which the public could have formed an opinion as to the merits of the claims put forward by masters and men. It will be remembered that in June the masters in the Midland districts demanded a reduction of 25 per cent. in wages, which was opposed by the men who struck work on July 28th, and remained out for 16 weeks. At the time there was considerable difference of opinion as to what this reduction of 25 per cent. really meant, and Mr. Stokes gives an official explanation. In this district, he points out, the wages had been increased by various percentages until at the commencement of the dispute they stood at 40 per cent. above the wages paid in 1888. The increases are shown in the following percentages advanced:—

1888.	Derby. Per cent.	Leicester. Per cent.	Notts. Per cent.	Warwick. Per cent.
October	10	10	10	10
1889.				
March	—	—	5	—
July	5	5	—	5
September	—	5	5	—
October	5	—	—	—
November	—	—	—	5
1890.				
January	10	10	10	10
March	5	5	5	5
August	5	5	5	5
Percentage advanced	40	40	40	40

Many miners did not at first clearly understand whether the reduction of 25 per cent meant a reduction of one-quarter of the total wage earned or a lowering of the advances from 40 per cent. to 15 per cent. above the rate of 1888, but the Owners' Federation made it clear that they demanded the reduction from the advances, and not off the gross wages. The true issue soon became apparent, and both sides prepared for a long cessation of work. The result of such a stoppage of coal production is seen by a decrease of 5,636,395 tons of coal in the total output of the district when compared with the previous year, for, although every exertion was put forward to raise the maximum quantity each mine would produce directly work was resumed, yet it was beyond the power of the miners to make up such a serious deficiency in the year's output. The total reduction of output for the United Kingdom was 17,461,076 tons, which is about 10 per cent. of the total output of the country, a decrease sufficient to create a coal famine over a large area, and advance the cost of coal to prohibitive manufacturing price, to stop many industries, to seriously threaten the railway traffic, and place many towns in jeopardy of failure of gas supply. "We see," Mr. Stokes urges, "from such a suspension of mining labour how important our coal supply is for the prosperity, and even existence, of our manufacturing industries. No body of men are more important to the country's welfare than the miners, and the very foundation upon which our national prosperity has risen, and still rests, is that of our mineral resources; and, therefore, it is to be sincerely hoped that the mine owners and the miners may never again experience such a suspension of labour, and that their failure to agree to matters in dispute may be settled by some description of Conciliation Board, and not by exhaustive trials of pecuniary or physical endurance."

— Shareholders in the MILL'S DAY DAWN UNITED GOLD MINES COMPANY (LIMITED) desirous of having their shares placed on the London register are requested to send in their present certificates, in order that they may be transmitted to the head office in Charters Towers for the necessary endorsement. Due notice will be given when the London certificates are ready to be exchanged for the official receipts. The transfer of shares to the London register involves no charge to shareholders.

— The report of the POTCHEFSTROOM EXPLORATION GOLD MINING AND ESTATE COMPANY (LIMITED) states that the funds have been kept together and further invested in first-class mining shares and mining investments. The amounts now standing in the books is £25,969, representing actual cost price, though considerable parcels since sold show a handsome profit on the price at which they stand in the books.

— A dividend of 7½ per cent. (1s. 6d. per share) in the TREASURY GOLD MINING COMPANY (LIMITED) was paid on the 10th inst.

INFORMATION to hand re the treatment of the tailings purchased by the Cassel Gold Extraction Company from the Waihi Gold Mining Company some months ago is of a most satisfactory character. The plant recently erected by the Cassel Company is working splendidly, the percolation process being a complete success, notwithstanding the doubts expressed by some people as to whether the tailings could be dealt with in that manner on account of the large amount of slimes that was supposed to be in them. The actual result is this, that during the four weeks ending on March 27th no less than 1400 tons of tailings were dealt with by the company for the handsome yield of 120 ounces of bullion, valued at £1500. This is, indeed, a very satisfactory result, and proves the wisdom of the company's representative, Mr. A. James, in recommending the purchase of the large heap of tailings now at the command of the company.

REPORTS FROM THE MINES.

We find it necessary to announce that, owing to the vast numbers of mining reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.

BRITISH MINES.

CARN BREA.—May 18: Highburrow west: Since we communicated the rise in back of the 310 fathom level west with the 298 winze, the men have been clearing the level of stuff. These men will now be put to rise again in the back of this level further east by boring machine, where we had a lode worth £20 per fathom. The lode in the 298 end west is worth £30 per fathom.—Highburrow east: In driving the the 322 crosscut south of Harvey's shaft we passed through the lode 8 feet south of the elvan. Since then we have driven 2 fathoms through ground bearing branches of tin; these, with the lode, are underlying south. We intend driving further south until satisfied we have the whole of the lode. After this we shall open out on it east and west, and prepare for sinking the shaft with all speed. Since we communicated the 286 winze with the 310 fathom level east, we have put men to stope east and west of same in the bottom of the 286 fathom level. The lode in the 286 end east is improving, and is now worth £14 per fathom.—Old Sump: We cannot report an improvement in the lode in the engine shaft sinking below the 256 fathom level. Having completed the skip road for drawing from this level, we hope to sink with greater speed. The 256 end is driven east of crosscut about 5 fathoms, lode producing a little tin. The lode in the 244 end east has recently improved, and is now worth £15 per fathom. All other points mentioned in our last report are without change. We have commenced to fix the new air pipes underground for the new compressor, and are pushing on the work as rapidly as possible.

DEVON GREAT CONSOLS.—Wm. Clemo, May 24: Watson's engine shaft: In the 172 fathom level east the lode is improved, and is yielding 3 tons of copper and mundic ores per fathom, of good quality. The lode in the 160 fathom level east is 4 feet wide, producing 2 tons of copper and mundic ores per fathom. In Bawden's winze sinking below the 148 fathom level east the lode is still looking well, and is turning out 12 tons of good copper and mundic ores per fathom for 9 feet long.

DRAKEWALLS.—J. Hosking and T. Chapman, May 23: During the week the shaftmen have sunk about 4 feet in the engine shaft. The 160 cross cut east of the engine shaft is without change, and the same remark applies to our other points of operation.

GRAVEL GOLD.—W. St. D. Griffith, April 21: Run No. 7 continued. During the last month washing has been continued on the rim mentioned in my last. The rainy season has set in with great severity, and we have had a break on the San Jose section which is now repaired. While the mine was without water the men have been employed in carrying up the 26 inch pipe from the old Reposo syphon to the mine to be got ready for relaying when we break through and in bringing up the ground cuts. The Reposo and San Jose syphons are all in good order and the new pipeline gives every satisfaction.

GREEN HURTH.—May 18: Annie's Vein: The south forehead is looking well, and producing lead worth 2½ tons per fathom. The heading in the back of the above level is not so rich this week. We have met with some strong leads coming in from the south-east. The ground in consequence is somewhat confused. A few days driving will prove what these are. The end at present is worth 1 ton per fathom. The south drivage from the sump on the above vein maintains its value, and is worth 3 tons per fathom. As the forehead is now getting some distance from the sump foot, I have commenced to crosscut at another point, and expect to reach the vein by driving about 2 fathoms, this will save lifting the bouse up the sump.—South-west branch above 30 level: The south forehead has been driven 1 fathom on the week. Vein, 2 feet 6 inches wide; sparry, but without ore. The heading in the back behind the south forehead is worth for lead 2 tons per fathom.—W. Gray.

LEADHILLS.—W. H. Paull, May 21: Brown's vein: In the past week we have put in a 6 inch lift of pumps from the 145 to the 160 fathom level at Jeffrey's shaft, which was much needed, and it answers well. In the forebreast of the 160 fathom level driving south of Jeffrey's shaft the lode is 4 feet wide, showing a nice rib of spar strongly spotted with ore, worth 10 cwts. per fathom. The 160 fathom level north of Wilson's shaft is being extended on a vein 4 feet wide, which contains a strong mixture of spar, but without ore at present. A winze has been started to sink below the 145 fathom level about 50 fathoms south of Jeffrey's shaft, where the lode will now produce 30 cwts. of lead ore per fathom. In Nos. 1 and 2 stopes above the 145 north of Jeffrey's shaft the vein will yield from 30 to 35 cwts. of ore per fathom. A crosscut east at the 145 north of Jeffrey's shaft has been started some 36 fathoms behind the forebreast and is being driven by four men for proving a portion of vein standing in that direction. The vein in the stope over the 130 north of Jeffrey's shaft is worth 30 cwts. of ore per fathom. In the 115 fathom level north of Jeffrey's shaft the vein is 5½ feet wide of a kindly appearance and showing a little ore. The stopes Nos. 1 and 3 over the 115 north of Jeffrey's shaft are now each worth 25 cwts. of ore per fathom. The 100 fathom is being pushed on south of Wilson's shaft in a vein 4 feet wide, showing a good mixture of spar, but too dried for producing ore. The eastern portion of this vein, driving on at this level, looks kindly, and a little water is issuing from the forebreast. In the drift over the 100 fathom level, north of winze, the vein has become small, soft, and unproductive, and suspended, and the men put to stope over said drift, where the vein will yield 30 cwts. of ore per fathom. The cross cut towards Raik vein, at the 100 south of Wilson's shaft is being pushed forward regularly by a full pare of men. In the stope over the 85, south of Wilson's shaft, the vein is 39 feet wide, worth 40 cwts. of ore per fathom. In the stope over same level, north of winze, the vein is 3 feet wide, yielding 50 cwts. of ore per fathom. Nothing of any importance has yet been met with in the cross cut east at the 70 fathom level south of Wilson's shaft. In the stope over the 50 fathom level, south of winze, the vein is worth 35 cwts. of ore per fathom. The vein in the stope below the 35 is producing 50 cwts. of ore per fathom. At Gripp's adit level driving south of George's Roust vein there is no material change in the Sarrowcole vein, which is 2½ feet wide of a very promising character, and we expect it will become productive soon.

NEW MINERA.—Mining report for the two weeks ending May 18: 275 yard level stope west of No. 2 rise four men. Lode worth 3 tons lead ore per fathom, estimated to produce 16 tons per month. Stope in bottom of level two men. Estimated to produce 5 tons lead ore and blende per month. The 295 yard level west of winze two men on tribute. Lode worth 2½ tons blende per fathom, estimated to produce 5 tons per month. West of sump six men on tribute. Lode worth 3 tons blende per fathom, estimated to produce 16 tons per month. West of winze in bottom of level four men on tribute. Lode worth 4 tons blende per fathom, estimated to produce 16 tons per month. The 315 yard level driving east of main cross cut. Lode composed of limestone and spar, improved and very promising. West of incline shaft four men on tribute. Lode worth 2½ tons blende per fathom, estimated to produce 10 tons per month. East of incline shaft six men driving and stoping in the bottom of the level. Lode worth 3 tons blende per fathom, estimated to produce 15 tons per month. West of winze two men on tribute. Lode worth 2 tons blende per fathom, estimated to produce 4 tons per month. Near forebreast west four men on tribute. Lode worth 3 tons blende per fathom, estimated to produce 12 tons per month.—Dressing: 32 tons blende sent off since last report, making the total quantity sold 4076 tons blende and 1708 tons lead ore.

POLBERRO.—May 21: The lode in the 26 east is improved since our last report. Large grains of tin in mundic are now disseminated throughout the lode, which maintains a width of 4 to 5 feet. Samples from this end to-day assay 20 lbs. tin to the ton, and the lode appears likely to improve in further driving as we approach the cross course. In the end of the 26 crosscut north we have intersected more branches carrying tin, and have broken some very fine stones of tin from the larger of these branches. We hope to communicate the 26 rise to the 20 west within a month.—(Signed) Charles Thomas, John Harper.

PRINCE OF WALES.—S. Roberts, J. Prowse, May 23: Our progress in the crosscut in the past week has been slow, the ground being composed of a beautiful nature capel and spar, and water gushing in all directions. Captain H. Bennetts (late of Holmbush Mine) was here on Monday last, and said he is quite confident the lode is still ahead, because they had a case exactly like it in the Queen Mine south of us.

PHŒNIX UNITED.—May 23: Setting report: West's shaft The 80 fathom level to drive west on the north lode at £2 5s. per fathom, lode worth £7. This level also to drive west (east) of crosscut by two men at £2 5s., lode worth £8. The 20 to drive west on north lode by two men at £3 10s., lode worth £8. The adit to drive west of this shaft by four men at £3 15s., lode worth £8. We have two men stoping at 160 fathom level west of Seccombe's, where the lode is worth £8 per fathom.—Western Mine: The 100 fathom level to drive east by two men at £5, lode worth £7. The 100 to drive west by six men, lode worth £10 per fathom, with improving appearance. We are pushing on this end with boring machinery, and anticipate opening up a good piece of ground. The 70 is being driven west by two men at £9, lode worth £8. This end has much improved during the last month, and we expect shortly to get under the good run of tin ground gone down below the 60. The midway level to drive west by two men at £3 10s., lode worth £8. We have 69 men stoping in this part of the mine, lode worth on an average £9 per fathom. At various points we have 27 tribute pitches working by 88 men and boys, at tributes varying from 6s. to 13s. in the £ for tin.—(Signed) Jno. Williams, Jno. Rundle, Wm. Manby, Jas. Hosking.

TINCROFT.—In Martin's east shaft the men are engaged in bringing down the skip road to the 330 fathom level. We have cut ground for fixing air winch preparatory to sinking, which has caused a little delay in driving the cross cut, but we expect to cut the lode in the cross cut in a few days. In the 320 fathom level driving east of cross cut, east of Martin's east shaft, the lode is worth for tin £20 per fathom. We have holed the rise in the back of this level, which has laid open a large section of stoping ground. In the winze sinking below the 320 fathom level west of Martin's east shaft the lode is worth for tin £16 per fathom. In the winze sinking below the 320 fathom level east of Harvey's engine shaft the lode is worth for tin £15 per fathom. During the past four weeks this winze has produced some splendid stones of tin. In the 320 fathom level driving west of downright shaft the lode is producing saving work for tin. In the 212 fathom level driving west of downright shaft the lode is worth for tin £10 per fathom. During the past four weeks we have brought down the pitwork to the 320 fathom level in downright shaft, which is working very satisfactorily.—North Tincroft: In the 164 fathom level driving east of Willoughby's shaft the lode is improving in appearance, and worth for tin £8 per fathom. In the 164 fathom level driving west of winze, east of Willoughby's shaft, we have a very fine looking lode, and worth for tin, copper, and arsenic £46 per fathom. In No. 1 winze sinking below the 154 fathom level east of Willoughby's shaft the lode is worth for tin and arsenic £16 per fathom. In the 120 fathom level east of Willoughby's shaft the lode is worth for tin and arsenic £12 per fathom.—William Teague, John Hammill, Geo. Nancarrow.

WEST KITTY.—May 24: The 108 fathom west is worth, for tin, £7 per fathom. The rise in the back of the 108 fathom level is worth £7 per fathom. The 94 fathom level west is worth £8 per fathom. The 84 fathom level west is worth £12 per fathom. The 60 fathom level east, south of slide, is worth £13 per fathom. The

60 fathom level west, south of slide, is worth £11 per fathom. The rise in back of the 60 fathom level is worth £12 per fathom. No change to notice in the stopes or tribute pitches since the meeting.—(Signed) Joel Cooper John Williams.

WEARDALE.—Report on Weardale Company's mines for week ending 19th May:—Groverake: Adamson's drift west, vein 4 feet wide of spar; better for ore. Worth 14 cwts. per fathom. Cubic fathom stopes worth 14, 14, 14, 12, 14, 14, 12, 12, 12, and 12 cwts. per fathom.—Boltsburn: Stopes above Watts's level in vein worth 22 cwts. per fathom in north and south flatts, worth 34, 20, 20, 34, 30, 18, 26, 16, 24, 18, and 18 cwts. per fathom.—Greenlaw's: Nattrass Gill drift stopes worth 14, 12, 16, and 12 cwts. per fathom. Lee's sump, stopes worth 12 and 20 cwts. per fathom. 35 bings of ore have been raised during the week from Greenlaw's vein and stringa.—Sedling: The 64 level east has been driven 1 4-8 fathoms this week. Vein about 3 feet wide of spar and rider, mixed with ore, worth 16 cwts. per fathom. Stopes in 64 level east and west worth 14, 14, 16, 18, and 14 cwts. per fathom. The crosscut north from bottom of shaft has been driven 16 fathoms in all. We have just cut through a strong lead, chiefly hard rider, some coarse spar, and spots of ore; looks badly. We have driven east from the shaft 4 feet in the scar limestone. Strong vein 4 feet wide of quartz and fluor spar, rider, and some ore. Stope in south vein Stobb's drift worth 12 cwts. per fathom. Ore raised for week 85 tons. Ore dressed for week 121 tons. Ore, slag, and fume smelted for week 127 tons, producing 66 tons of pig lead.

WHEAL AGAR.—May 19: Setting report: Robartes' engine shaft new north lode: Since the 20th ult., or time of general meeting of the shareholders, we have cut the ground for cistern and bearers and fixed same in proper position, ample in size for receiving plunger bottom when requisite, and also reared up from the 320 to the 300 fathom level a 10 inch drawing lift, with 13 inch pumps on top. The reason for building up with such large pumps is that the same will make up part of the plunger column referred to. Also put in hanging piece of rod with connections, stays, &c., for the sinking lift and made it complete, together with double skip road from 300 to the 320 fathom level, and the shaft securely timbered and cased. Everything is now being done to sink this shaft as rapidly as possible, which is now down 2 fathoms below the 320 fathom level, and set to 18 men at £50 per fathom. Lode more than full width of shaft, but for 8 feet wide and 12 feet long, is worth £40 per fathom. The 320 fathom level is advanced west of shaft 16 fathoms. The increased width of the lode at this point is traceable to its being in conjunction with the little middle lode, thus making it desirable to test its full width and worth. Therefore, we have set to seven men and a machine a bargain to bare the north and south walls of the lode for £15. The value of this point for tin is £15 per fathom. The 320 is extended east of shaft 8 fathoms. The lode in present end is of a very promising character and worth £10 per fathom. This point is urged on by seven men and machine at £9 10s. per fathom. The 312 is extended west of crosscut 11 fathoms, and in a week from this we hope to obtain the necessary distance to sink a winze and communicate with the rise in the back of the level below. We are desirous of effecting this communicating as rapidly as possible for the purpose of utilising this machine in the sinking of the engine shaft. This end is set to seven men at £9 per fathom. Lode worth £10 per fathom. The 312 fathom level is driven east of crosscut 3½ fathoms. Lode full size of end and worth £9 per fathom. Also being driven by seven men and a machine at £9 per fathom.—Great lode: At the 270 fathom level about 176 fathoms east of shaft the lode has proved to be of great width. Guided by the character and worth of the lode in the stope about 5 fathoms above this point, it appears a better and more productive part of the lode is still to the south. With a view to ascertain this, we are driving a crosscut with ten men at £14 per fathom. In two weeks from this date some further light will be thrown on this. One stope in the bottom of 255, working by 12 men at 5s. per ton of stuff, lode worth for tin and arsenic £15 per fathom. One stope working in the bottom of 245, by 12 men, at 5s. per ton of stuff, lode worth £13 per fathom. The point at the 285, which we previously reported as worth £20 per fathom for tin and arsenic, is of the same value, but we deemed it prudent to work it on the tribute system, and, therefore, set the same to three men at 7s. 6d. in the £. We have 13 other tribute pitches at work on the mine by 42 men at an average tribute of 8s. 10d. in the £.—Surface operations: We still continue improving our dressing appliances and machinery throughout. The results accruing from same are satisfactory.—William Hambly, Ralph Daniel, M. D. Penhale.

COLONIAL, INDIAN, AND FOREIGN MINES.

BONANZA GOLD.—The following report has been received from the manager, under date 29th April;—I send you by this mail a map of the mine, which will aid you in understanding where the work is being done. Up to date we have driven No. 1 raise 26 feet, No. 2 raise 27 feet, No. 4 raise 27 feet, and the section tunnel 23 feet. This work has shown in all places a constant improvement both in the quantity and quality of the ore.—No. 1 Raise: I started in the country rock to tap the ore chute already cut in raise No. 2, and open it for stoping. I did not expect to cut the ledge in less than 40 feet, but have already reached it, and have 6 inches of rich ore, which is constantly widening. Within a few days I am confident I shall be in the heart of the same fine body of ore that I have in No. 2 raise. At the point that I began work in No. 2 raise the ore was 6 feet wide, and assayed $15 per ton. Now it is 8 feet wide, and, while I have no assays, is very much richer, as shown by prospecting in a horn. Gold shows plainly to the naked eye through all parts of the 8 feet. The raise No. 4 was started in soft disintegrated quartz, probably the "gange" of the vein, but we are now carrying 20 inches of good quartz between fine walls. The Section Tunnel was started in vein matter and is now in quartz, with 12 inches on the footwall, which prospects finely. I started work at this point in order to make a connection with raise No. 2 and get the mine in condition to produce ore quickly. But a survey I have had made shows that I can make the connection almost as quickly, and at a considerably less expense by driving tunnel No. 2. I have transferred the men in the section to No. 2, and have them working in good quartz. By the time that I can start the mill the mine will be in shape to produce an abundance of ore at a low cost, and of a better quality than I had expected. I regret that I cannot send assays at present, as I have been obliged to send to San Francisco for some necessary material. But the gold is so free that the horn prospect is sufficient to prove that the ore is constantly improving. The date of starting the mill only depends on the arrival of the cable for the tramway, which has been ordered, and should not be later than June 1.

CORTEZ.—The directors have received the following information from Mr. Wenban, the managing director at the mines: It gives me pleasure to announce that we have struck what we now think is the St. Louis ledge, though, of course, we cannot be quite sure this is the main ledge. I will run the Polar tunnel two weeks longer, and this will decide the question to our satisfaction; but I am strongly of opinion that this is the true vein. It is to an inch of the distance I calculated we would have to run to strike it when we commenced the tunnel, which I consider a fair good guess for a distance of 4100 feet. The vein is 8 feet in thickness, and the indications are that we are near to a pay shute. We get assays of 7 ounces per ton where we cut the ledge, and we feel very much encouraged over the strike. It is my purpose to swing the tunnel around in line with the ledge, the course of which is due east and west, and continue it out to daylight. By doing this I feel quite sure we will strike some of the finest ore bodies ever encountered in the mountain. I am led to this belief from the fact that we will pass directly under the St. Louis croppings, which are the strongest of any on the mountain, besides having other rich and most promising outcrops of ore all along the line.

ELKHORN.—Copy of Mr. C. A. Molson's monthly report for April: Mine, ore breaking department, 650 feet level south, back stope: The vein is 30 inches wide and the value 40 ounces. In No. 2 stope the vein is 30 inches wide and the value 70 ounces. This stope is in the footwall below the old workings. The ore is mostly of the milling class, although occasional bunches of lead are met with. In the 750 feet level north, crosscut raise stope the vein is 3 feet wide, and the value 38 ounces. Connection has been made here with the south end of the stope above the 650 feet level. Inside stope: The vein is 12 feet wide, and averages 40 ounces The whole stope is in dry ore, and keeps regular in size and value. 850 feet level north: The vein is 6 feet wide, and assays 50 ounces. Small streaks and bunches of high grade sulphide occur between the bands of dry ore.—950 feet level north; South end: The vein is 2 feet wide, and assays 30 ounces.—Back stope: The break in the hanging wall has been passed through. The ore is now 4 feet wide, and assays 60 ounces. Some bunches of lead ore occur here also. In the 1050 feet level north, outside stope, the vein is 5 feet wide, and assays 55 ounces, with some bunches of lead ore on the footwall. The vein in raise stope is 6 feet wide, and assays 24 ounces. South of the shaft, back stope, north end the vein is 5 feet wide, and the value 33 ounces. The ore is all of the milling class. In the 1150 feet level south, south end stope, the vein is 20 inches wide, and the value 42 ounces. In the 1250 feet level north the intermediate drift struck ore 24 feet south of the main raise. The chute is at present 10 feet long, 8 feet wide, and assays 46 ounces. The ore is all of the milling class. In the 1350 feet level south, footwall crosscut, connection was made during the month with the lead chamber in the centre of the stope. The vein is 5 feet wide, one-half of which is smelting ore, assaying 200 ounces and 15 per cent. lead, and the balance is dry quartz averaging 45 ounces. In the centre stope the ore is 14 feet wide and assays 28 ounces. In the south end the vein is 12 feet wide, and averages 40 ounces. The ore is silicious, with irregular bunches of high grade sulphide.—1450 feet level north: In the raise stope the vein is 2 feet wide, and the value 70 ounces. The ore is partially oxidised and of the smelting class. South of the shaft: In the back stope the vein is 7 feet wide, and assays 92 ounces, with 7½ per cent. lead. In the centre stope, foot of main raise, the vein is 6 feet wide, and assays 125 ounces silver, and 10 per cent. lead. The ore is very base. In the south end stope the vein is 2 feet 6 inches wide, and assays 27 ounces. — 1550 feet level, south: In the raise stope the vein is 7 feet wide. The footwall portion is 4 feet wide, is smelting ore assaying 85 ounces, and 9 per cent lead. On the hanging side the ore is dry and assays 35 ounces for 3 feet in width.—Prospecting Department: 1650 feet level south: Previously reported, 433 feet; advanced in April, 227 feet; total length, May 1st, 660 feet. Nothing of value has been found in this drift up to the present time.—Amount and Source of Ore Broken; 650 level 89 cars, 750 level 299 cars, 850 level 168 cars, 950 level 178 cars, 1050 level 219 cars, 1150 level 177 cars, 1250 level 43 cars, 1350 level 525 cars, 1450 level 288 cars, 1550 level 93 cars; equals 2079 cars. Number of tons, 1311.—Milling Department: The mill ran steadily during the month, the time lost being for the ordinary repairs, which did not require the stoppage of the pans.—Table of work performed in April: Ore on hand April 1st 85·71 tons, raised from the mine 1311 tons, less smelting ore 179·64 tons, waste sorted out 161 tons, add for salt 148·09 tons, dry ore panned 1118·88 tons, pulp in the mill 29·28 tons, rough ore in stock 56 tons, equal 1204·16 tons.—Table of mill work: Dry tons panned 1118 tons, average assay value 38 ounces, average percentage salt used 14 per cent., average value of tailings 3 ounces, average percentage saved 92 per cent., No. of Dore bars produced 37 bars, No. of ounces fine silver 37,954 ounces, No. of ounces pure gold 24 ounces, batteries in service 27 days, pans in service 28 days, estimated value value of bullion shipped $23,266, actual returns for ore shipped 14,094, = $37,360, current expenses, including salaries, labour, and supplies, 22,060, balance being profit for April (or at at $4.85 to £ sterling, $3154) = $15299 —Surface Department: Fuel, the supply has been increased during the month. Water, the ditches are full again, and we have all we need in the mill, Everything is running regularly about the works.

HARQUAHALA.—Copy of Mr. T. Allen's report for the month of April: Mining Department: Ore Breaking: Discovery Vein, above 1st Level, South: This section has been supplying the mill with 10 tons daily during the month, assaying $10·50 per ton in gold. Discovery vein above third level north and south: From this stope the average daily quantity sent to the mill has been 12 tons, with an assay value of $13·50 per ton.—Discovery vein above fifth level south: The average value of the ore in this stope has been $17 per ton.—Discovery vein above 6th level south: We are approaching the stope on the fifth level and expect to connect in a few days. The width under operations is 9 feet and its assay value $10 per ton. Iron vein above fifth level south is 3 feet wide, and has averaged $13 per ton during the month. Iron vein above sixth level south is 4½ feet wide, and its average value $12 per ton. Golden Eagle Group above first level we are hauling 20 tons daily from this group, the ore coming from the stopes above the first level. The average assay value is $19 per ton.—Prospecting Department; Iron vein sixth level south drift has been advanced 53 feet during the month in a small seam of low grade ore for the greater part. The present face of the drift, however, shows an improvement, the vein being 1½ foot wide, assaying $9 per ton. No. 4 Cross cut, 6th Level, South: 200 feet south of the main shaft a cross cut has been started westerly from the main level cross cut. The distance advanced is 81 feet. The first few feet carried ore of $6 per ton in value; the balance shows gold in the pan at intervals. The rock is chiefly hard in character.—No. 4 Raise, 6th Level, South: 33 feet south of No. 1 raise another raise has been put up to connect with the 5th level stope on the discovery vein. Its height is 32 feet; the connection is made. The last 10 feet was in ore of $18 per ton.—Nos. 2 and 3 Cross cut, 6th Level, South: We have suspended operations here with the machine drills. It is our purpose to use the diamond drill in prospecting further east in these two cross cuts. The drill is now working in cross cut No. 2. — New Incline Shaft, 6th Level, South: 250 feet south of the main shaft on the 6th level we are opening a station for the hoisting engine. The dimensions of the station are 25 feet long, 10 feet wide, and 8 feet high. The rock excavated is sent to the mill, averaging between $6 and $7 per ton. The object of this incline shaft is to prove the vein system more expeditiously and cheaply. The flattening of the Discovery vein between the fifth and sixth levels will necessitate a long crosscut from the main shaft if another lift is put down there to the seventh level. The spare hoist on the ground will be utilised and run by compressed air, and the ore raised and run out to the main shaft in cars.—Golden Eagle group: Main vein, south drift: This drift has been advanced 48 feet during the month. The vein is on the whole narrow and its value about $5 per ton.—Golden Eagle Group: Main tunnel has advanced 11 feet; the face is still in quartzite.—Milling department: The following figures give the result of the milling operations during the month. The mill was idle for 14 hours, repairing a friction pulley and lining up the battery shaft to be ready for connection with the new battery of stamps:—Tons crushed, 2580 tons; amalgam cleaned up estimated to yield, $32,000; miscellaneous revenue (from general store), $500; total, $32,500; expenses on revenue account, £12,100; estimated profit for the month, $20,400 (or at $4·90 to the £ sterling, £4163). Average loss in tailings $2·65 per ton. The mill addition is nearing completion, and will be running about the time already mentioned viz., second week in May. Everything is in good working order.

KAPANGA.—W. H. Argall, April 9: I beg to hand you the following report for the four weeks ending 7th inst.: Larnach's engine shaft has been sunk during the month a further distance of 20 feet, by 12 men, making the total depth below the 600 feet chamber of 62 feet. In sinking two branches were intersected, varying from 3 to 5 inches wide, bearing about north and south with the underlie to the west. We also went through several small quartz veins, which are composed of quartz, carbonate of lime and iron pyrites. These are very probably the branches which were met with when driving the crosscut east at the 300 feet level, showing, therefore, that they hold going down. The country rock in the shaft is highly mineralised and getting harder. We shall now commence cutting out ground for the cistern-bearers and also chamber for the cistern, this work will delay us in sinking somewhat. The shaft has been timbered within a few feet of the bottom and divided; the cage road is also fixed to the bottom, and ladders placed in position; other necessary repairs to the shaft and pitwork were accomplished. The rise above the 300 feet level on Scotty's footwall branch has been put up a further distance of 36 feet by three men, making total distance 46 feet. This was holed to the stope to give better ventilation for working. The stope south of this rise has measured 16 feet by 16 feet; here we have seen a little gold. The reef is about 2 feet wide, and the hanging and footwall portions have junctioned at this point. We are hoping to get good gold somewhere near the junction, therefore we look on this as an important point. The machinery and pitwork are working fairly well.—Coromandel Section: Seventeen men are working here on tribute and obtaining a little gold.

JAY HAWK AND LONE PINE CONSOLIDATED.—Captain J. Prideaux, May 10: Everything in the mill is now in first class shape and running well.—Ditch: As mentioned before, it was the bursting of the Vipond ditch which made our pipes freeze. The frost did not get in through the air valves. It was fortunate we connected the pipes when we did, as for the next three or four days there was a storm, which would have made it impossible to work.—Mine: The sinking of the shaft has been resumed, and will be pushed down another lift with all possible speed. It is now down 12 feet below the 1500 level. The 1500 level is still being driven through the ledge; it is now in about 15 feet. The ledge here is large, and, as before stated, I believe the split up lodes have come together here, but cannot say for certain until we have done more work. The ore is of good quality. At the 1400 we are sinking a winze to the 1500; this will give us good ventilation, the ledge in the winze is improving. This winze will also open up stoping ground. The stopes between the 1300 and 1400 feet levels are looking very well, and turning out the usual quantity of ore. The stopes between the 1300 and 1200 are looking about the same.—Bonanza: We have sunk the shaft to the 100 feet level. The ore in the bottom is about 14 feet wide, but is not so rich as it has been, but is looking well. We are letting a contract to drive a level north for 30 feet at this level, and when this work is completed the sinking will be resumed. The stoping of the richer ore both sides of the shaft above this level will also be commenced. An assay of the ore will be sent in my next. Our assayer has only just got to work.

ORITA.—H. J. Prender, April 13: Run No. 76: On the 12th inst. I cleaned up $1646·50, and I am glad to be able to state that this came from the same bank as the $890 reported in my last. We only cleaned up two-thirds of the length of sluice, and ran one day less. This clearly shows an improvement, and the gravel has quite changed for the better. In fact, it is now looking more like that which we had in the channel, but as yet it will not pan out more than five colours in the pan. The bedrock has pitched where the gravel is best, and to get the grade I must drive a tunnel in the rock 110 feet long. This I levelled to-day, also set it out, and started men on the work, which will keep on day and night. At present the rock is not very hard, and I trust it will continue so.—April 18: We are washing steadily, but, for want of grade, not on the better part of the bank. The tunnel is progressing well, and up to the present the rock has not been very hard.

TOLIMA.—The directors have received advices by the mail of the 24th May, from their mines, of which the following is an abstract:—Frias estimated March return (200 tons) silver, valued at 27½d. per ounce, £8951 9s. 3d.; cost £5181 9s. 8d., profit £3769 19s. 7d. The underground agent reports 94 fathoms 1 foot 4 inches of ground expended, of which 69 fathoms 3 feet 4 inches were productive, leaving of unproductive ground 24 fathoms 4 feet. The superintendent reports that at the date of his letter, April 16th, a still further improvement had taken place in the 140 east, the lode being now estimated to yield 3 tons per fathom of high grade mineral. He also adds that an average sample taken from this end on the 14th April assayed 489 ounces per ton. The superintendent further reports that both the 130 west and the 110 east ends have been yielding some good spots of mineral, and that at both these points the prospects are most encouraging. In the 90 fathom east end the mineral had become more concentrated, the grade having improved, whilst the yield was at the rate of 1 ton per fathom at the date of the superintendent's letter. In the 90 east winze, which is being sunk towards the 110 fathom level, the yield at the above date was at the rate of 1 ton per fathom, the lode continuing to look very promising. The cross cut south from the shallow adit is reported to have intersected the lode, which is described as well defined and the full width of the level.—Underground Report; Engine Shaft: The hanging side of shaft is cut down to 25 feet below the sole of the 110 fathom level. Also the shaft is sunk to 4 feet below the sole of the 130 fathom level. 140 fathom west end was driven 10·5 feet by two men at $75 per fathom, being 25·2 feet as total west of winze, and has yielded 5 cwts. of mineral per fathom. 140 fathom east end was driven 18 feet by four men at $80 per fathom, being 45·7 feet as total east of winze. The lode has maintained a good improvement both in quality and quantity of mineral. 130 fathom west was driven 11·3 feet by four men and a boring machine at $70 per fathom, being 258·8 feet as total west of winze, although it is driving in a rather hard and tight bar of ground, yet in other respects the lode has improved, and of late it has been yielding some good bits of mineral. 130 fathom east end was driven 11·2 feet by two men at $70 per fathom, and remains poor. The 120 fathom west back stope No. 1 was stoped 42 feet by four men at $25 per fathom, and yielded well. 120 fathom west back stope No. 1a was stoped 38 feet by four men at $25 per fathom, and yielded as usual. 120 fathom east end north branch was driven 14·8 feet by two men at $55 per fathom, and continues poor. 120 fathom east back stope No. 1 was stoped 4·4 feet by four men at $27 per fathom, and yielded well. 110 fathom east end was driven 25·3 feet by four men and a boring machine at $60 per fathom, being 716·2 feet as total east of engine shaft. The lode continues very promising, and has yielded in these last few days some good stones of mineral. 110 fathom east cross branch was driven 4·2 feet by two men at $65 per fathom, and yielded 15 cwt. of mineral per fathom. 110 fathom east back stope, No. 1, was stoped 9 feet on company account, and yielded well. 110 fathom east back stope, No. 3 was stoped 102·5 feet by six men at $22 per fathom, and yielded well. 110 fathom east stope cross branch was stoped 12 feet on company account, and yielded well. 100 fathom east back stope was stoped 44 feet by four men at $27 per fathom, and yielded well. 90 fathom east end was driven 21·2 feet by four men at $65 per fathom, being 843·3 feet as total east of engine shaft. This has continued to yield well, and has given on an average 2 tons of mineral per fathom, with lode yet strong and prospect good. 90 fathom east winze was sunk 18 feet by eight men at $90 per fathom, and yielded 2 tons of mineral per fathom. It is situated 66 feet behind the 90 east end, and the lode in bottom of winze continues to yield well. 90 fathom east end (Welton's lode) was driven 19·2 feet by four men and in part by a boring machine at $67 per fathom and the lode remains poor. 80 fathom east stope was stoped 45 feet by four men at $25 per fathom, and yielded well. Shallow adit cross cut was driven 11·7 feet by four men at $90 per fathom, and at date of writing I consider it is intersecting the lode. Straightening mouth of shallow adit was driven 17·5 feet by two men at $50 per fathom, and is now holed to the main level. Cross cut to new lode was driven 3 feet by two men at $150 per fathom, being 378·1 feet as total length, and is without change.—Real de Frias: Deep Adit west was driven 33·7 feet by four men at $40 per fathom, being 457·4 feet as total west of shaft, and the lode holds very promising, and in the last few days it has been giving some good stones of mineral. Old Spanish cross cut has been further cleared 33·5 feet during a part of the month. Other work has consisted in making room for pit headgear.

COLOMBIAN HYDRAULIC.—The directors have received advices from the mine dated 20th April: The superintendent reports that the last clean up, which left a profit of £1000 (cabled received 26th April) was obtained from the east side of Clarke's banks, and that the next three months will be from the same place.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended April 12: Block 96: Main shaft 280 level east prospecting drive No. 4 rise driven 7 feet, total 34 feet. The lode is widening, consisting of calcite and carbonate of iron, laminated with veins of iron pyrites, and is rising faster, country very hard. Incline sunk 2 feet 6 inches, total 544 feet 6 inches. The lode is widening, and appears to be rising, else no change. The pump has been placed in position and is working well, a separate column of air pipes is being put in to work the pumps independently. No. 5 level west of incline driven 7 feet, total 24 feet; no change. No. 5 level east of incline driven 10 feet 6 inches, total 16 feet 6 inches. Lode well defined, consisting of calcite and carbonate of iron but shows no ore. No. 4 level east of incline driven 10 feet, total 178 feet 6 inches; no change. No. 3 level east of incline driven 12 feet. In stoping downwards and nearer the incline galena has been met with in calcite and carbonate of iron 280 level west prospecting drive, driven 12 feet. The lode became pinched, but widened out again, carrying two veins of iron containing galena, grey ore, and a little canary ore. Is also dipping faster and still looks very promising.—Note. The quantity of rock mined during the fortnight was 2281½ cubic feet.

BALAGHAT MYSORE.—Joseph Pryor, May 2: Ogle's Shaft: Having done all the preparatory work necessary for the fixing of the new or 8 inch plunger lift at the 410 feet level we stopped the pumping engine on the morning of the 20th ult., and put on full force to complete the travelling rod connections with the perpendicular main rods at the bottom of the downright or 165 feet level, attaching wood rods and rearing the column of pumps to this level. Here unfortunately the shaft is very small and cramped for working, and consequently it took us somewhat longer to accomplish the work than we should otherwise have done; it, however, affords me pleasure to say that all was completed and the engine resumed pumping on the evening of the 22nd ult., and that since that date all the pitwork, including the new plunger lift, &c., from the 410 upwards has worked most satisfactorily. On the 28th ult. we stopped to enlarge the bottom drawing lift, viz, at the 600 feet level (discharging to the pole at the 410) from a 6 inch bucket to a 7½ inch. This now not only enables us to fully cope with all our water to this depth, but will also overcome many of the hindrances that have hitherto prevented us from developing the bottom of the mine. Below the 600 feet level, except at Haines's shaft, the coming water is very little. We, however, purpose carrying the pitwork to the bottom or 800 feet level as early as possible, so as to be in a position to at once cope with any increase or unexpected influx from the upper levels. Owing to above stoppage of the pumping engine, the bottom of the mine has naturally been inundated with water, and before we resumed working it had filled the levels and all our bottom stopes, and had risen to about 25 feet above the 730 feet level at Ogle's, and to 10 feet above the 800 feet level at Haines's shaft. We are now driving this as fast as possible, and I am pleased to say not only are all the bottom stopes at the 730 once more dry, but that work has again been resumed in them, and the water at the shaft is now 15 feet below this level. We hope in another day or so to reach the 800 feet level, and to very soon have the mine all in fork again. The quartz in the 800 feet level north is about 1 foot wide, and assay 2 ounces 18 dwts. 2 grains of gold per ton. The stopes in the back of this level produce quartz of 1 foot wide, and assay 4 ounces 13 dwts. 8 grains of gold per ton. At the 800 feet levels north and south from the bottom of the No. 1 winze at the 730 feet level the quartz is from 1 foot to 15 inches wide, and assays 3 ounces 6 dwts. 6 grains and 2 ounces 19 dwts. 17 grains of gold per ton respectively. The stopes in the bottom of the 730 feet level north yield quartz of from 6 inches to 1 foot wide, and assay 1 ounce 13 dwts. 4 grains per ton. The stopes in the back of this level produce quartz of from 9 inches to 1 foot wide, and assay on an average 19 dwts. 8 grains per ton. The stopes in the bottom of the 600 feet level north yield quartz of from 6 inches to 1 foot wide, and assay on an average 10 dwts. 23 grains per ton.—Haines's Shaft: The water here is being drained as rapidly as possible, it is now about 1 foot over the sollar at the 800 feet level. Being now able to remove a donkey pump that was formerly required at the 600 feet level, we have done so, and are now engaged fixing it at the 800 feet level, and we hope to get it at work this evening. With this additional pump we hope the forking at this part of the mine will now proceed with much greater speed, and that we shall within the course of a few days be all in fork again. The lode in the shaft is without change the quartz being from 1 foot to 15 inches wide and assays 6 dwts. 12 grains per ton. The quartz in the 800 feet level south is 1 foot wide and assays 5 dwts. 14 grains per ton, and in the drives north and south from the bottom of the No. 2 or midway winze at the 730 south it is from 6 to 9 inches wide and assays about 10 dwts. per ton. The stopes in the back of this level produce quartz of from 1 foot to 1½ foot wide and assay on an average 10 dwts. 20 grains per ton. The stopes in the bottom and back of the 730 feet level south yield quartz of 1 foot wide and assay on an average 10 dwts. 13 grains per ton.—Tennant's Shaft: This shaft has been sunk 12 feet 6 inches or 27 feet 6 inches below the 350 feet levels, the quartz varies from an average of 4 feet to 2 feet 6 inches wide and assays 10 dwts. 6 grains per ton. The 350 feet level north has been driven 12 feet 9 inches, or 49 feet 6 inches from the shaft, the quartz varies from 15 inches to 9 inches wide and assays 6 dwts. 12 grains per ton. Within the course of the next few days we purpose commencing a rise in the back of this level, this we are hoping will lay open a section of payable stoping ground. The 350 feet level south has been advanced 14 feet or 50 feet 3 inches from the shaft; the quartz varies from 3 feet to 1 foot wide, but assays only 2 dwts. 19 grains per ton. The skip road above the 350 feet level to the top of the shaft is almost completed, and we are now busy preparing and cutting hitches, &c., for the timbers of the tip-plat at the 350 feet level as well as preparing the necessary shoots, &c, at surface, and shall shortly get one of the skips to work.

FRONTINO AND BOLIVIA.—Report of Mr. Eustace, dated La Salada, April 6: Silencio: The general condition of the mine is much the same as reported in my last letter, but the work in drivages and the sinking of the main shaft has been very much retarded by lack of miners; however, the extraction of mineral has been kept constant, and the mills have been fully supplied. In the 450 or No. 6 level the drivage is in very hard granite, and the work is slow, but I hope the lode will be intersected within a month. It was first intended to drive south at this level, but for the present the project has been abandoned until the 500 feet or No. 7 is reached, and a level at that depth will suffice for the working of the south ground. The 400 feet or No. 5 north will be started again about the end of the month; the exploration mentioned in my last letter has proved nothing of importance, and as the level will eventually be required, although poor in mineral, the drivage had better be resumed, and will be more advantageous than explorations above it. The 340 feet north or No. 4 north is still in good mineral, but in the last few feet of drivage it has become mixed with seams of granite, and the lode has, therefore, a slightly lesser value than when last reported on. The lode in this level south is much the same as last reported, except that it has widened a little. The 286 feet level north or No. 3 is in mineral 6 feet wide, but poor, and carries very little pyrites, however, this feature is not discouraging, as in a few feet of drivages on the Silencio lode it frequently happens that the mineral changes its condition quite diametrically opposite. The stopes throughout are a little poorer, but maintain their size of lode. The work of laying the new skip road in the south engine shaft has not yet been commenced, as was thought probable would have been done when I last wrote, for the reason of not having the number of miners necessary to supply the mill with mineral, and carry on this new work at the same time; however, as more men are now obtainable this work will be put in hand.—La Salada: The sinking of the new shaft is progressing favourably, the ground has not changed the least, and although the work is costly no timbers will ever be required, beyond those necessary for the pump work and the skip roads. The drivages in the levels show no change in the nature or value of the mineral, neither in the stopes. Although the diarics this month are quite equal to last month up to this date, it is due more to the improvement of some of the stopes rather than a better crushing done in the mills. The Poconé water has very considerably fallen back in the past few weeks and the crushings in the mills have consequently been small. The lode of which I made mention in my last as being doubtful of what it really is, has had little or no attention since, from the fact that all work had to be directed towards the supply of the mills.—Cordoba: Rosario Section: This section of ground is proving the lode above the No. 7 level north, and has been gradually increasing in bulk and value in the past fortnight. The mills diarios show very fairly indeed, and the lode in the stopes increases in size, insomuch that the Tigrito new mill is partly supplied with mineral from it. The Cordoba mill has been short of water, and only 12 heads of stamps are at worked. It is not likely that more stamps can be worked until the rainy season sets in. The No. 8 crosscut advances as usual, with little or no difference in the nature of the ground.—Tigrito: The Humedad crosscut progresses much as usual, and in about two months the lode will probably be intersected, and it may be hoped that after it is driven on north and south some distance it will provide ore sufficient for the demand of the new mill. The old Tigrito mill is almost at a standstill, all the workable ground within access has been worked out. There is, however, the hope that the establishment will be resuscitated if the Humedad section should drain the south portion of the lode beyond the present old mill, as some time ago works were begun in the neighbourhood but were abandoned by the incessant coming water.—Marmajon and Marmajito: At the former mine the crosscut advances fairly. At the latter the air shaft is about broken through to the workings below, and after a few repairs are made the extraction of mineral will be commenced. I hope to report the both mills crushing ore in my next letter.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, dated April 13: Mons Meg Mine: Drive north of winze on main shoot, 100 feet below tunnel D, advanced 16 feet, total 56 feet. Lode much disturbed but carrying quartz veins which are highly mineralised and somewhat auriferous. Drive south at same level extended 14 feet, total 47 feet. Lode 5 feet wide and similar in character to that in north end although more defined. Have resumed extension of No. 1 rise north of tunnel J in order to communicate to drive 50 feet above which has traversed payable stone. Total height of rise 31 feet.—Stopes: Lode in stopes over drive south of tunnel D from 8 feet to 15 feet wide consisting of sandstone and quartz veins, some of which are highly auriferous. Underhand stope at 290 feet level below J passing through a block of blank ground. Lode should be met within a few days. Underhand stope at 44 feet level. Lode 6 feet wide but of low grade. Stope on hanging wall of north shoot at back of tunnel J, vein 3 feet wide and of fair quality, gold being occasionally visible.—Returns: Following are the returns for four weeks to 3rd instant, viz: Mons Meg Mine: 500 tons, 154 ounces 15 dwts. of gold.—Pyrites Works: 54½ tons concentrates, yielding 36 ounces gold. Total for four weeks, 190 ounces 15 dwts. melted gold.

MOUNT MORGAN (Queensland).—The following are further assays from the Grasstree workings:—Stope No. 1: March 6th, 3 ounces 5 dwts. 8 grains; 7th, 3 ounces 5 dwts. 8 grains; 8th, 1 ounce 4 dwts. 12 grains; 9th, nil; 10th, 4 ounces 9 dwts.; 12th, 2 ounces 15 dwts. 12 grains; 13th, 3 dwts. 6 grains; 14th, 1 ounce 4 dwts. 12 grains; 15th, 1 dwt. 15 grains; 17th, 1 ounce 12 dwts. 16 grains; 19th, 6 dwts. 12 grains; 20th, 1 ounce 6 dwts. 3 grains; 21st, 8 dwts. 4 grains; 22nd, 1 ounce 2 dwts. 20 grains; 23rd, 3 ounces 3 dwts. 16 grains.—Stope No. 2: March 9th, 9 ounces 7 dwts. 20 grains; 10th, 10 dwts.; 12th, 3 ounces 8 dwts. 14 grains; 13th, 5 ounces 14 dwts. 8 grains; 14th, 1 ounce 6 dwts. 3 grains; 15th, 18 ounces 15 dwts. 16 grains; 16th, 18 dwts.—Stope No. 3: March 6th, 3 dwts. 6 grains.—Stope No. 4: March 6th, 1 ounce 17 dwts. 14 grains; 7th, 6 dwts. 12 grains; 8th, 14 dwts. 17 grains; 9th, 10 dwts.; 10th, 4 dwts. 21 grains; 12th, 2 ounces 9 dwts.; 13th, trace; 14th, 3 ounces 5 dwts. 8 grains; 15th, 1 ounce 1 dwt. 6 grains; 16th, 13 dwts. 1 grain; 17th, nil; 19th, 6 dwts. 12 grains; 20th, 6 dwts. 12 grains; 21st, 8 ounces 3 dwts. 8 grains; 22nd, 5 ounces 14 dwts. 8 grains. Grasstree crosscut north, March 6th (99 feet) 3 dwts. 6 grains; 7th, nil; 8th, 1 dwt. 15 grains; 9th, 1 ounce 1 dwt. 6 grains, 8 ounces 3 dwts. 8 grains, 14 dwts. 17 grains; 10th, 3 dwts. 6 grains; 12th, 1 dwt. 15 grains; 13th, 3 dwts. 6 grains, 18 dwts.; 14th, 16 dwts. 8 grains; 15th, 1 dwt. 15 grains; 16th, 4 dwts. 21 grains, 8 dwts. 4 grains; 17th, 11 dwts. 10 grains; 19th, 6 dwts. 12 grains; 20th, 4 dwts. 21 grains; 21st, 8 dwts. 4 grains; 22nd, (171 feet) 6 dwts. 12 grains, 2 ounces 14 dwts., 2 ounces 20 grains.

MOUNT LYELL.—The London committee have received the following report from the Melbourne board—viz., for the week ending April 5:—Engine shaft, 100 feet level: The western crosscut has been driven 4 feet, total 59 feet. No change—50 feet level: The south drive has been advanced 6 feet, total 81 feet. The driving is through very hard ironstone. The west crosscut at the end of the north level is in a total length of 21 feet. The face is now apparently in the main body of pyrites. There is no change to report in the stopes. No. 2 shaft is now down 105 feet. The contractor having finished the sinking a start has been made to crosscut west at the 100 feet level.—No. 5 tunnel: The contractors have driven 27 feet, total 485 feet. The country has changed and the face is now in soft schist rock.—Ore raised: 66 bags of ore weighing 3 tons 18 cwts. 1 quarter 17 lbs., and containing 5462 ounces of silver, or an average of 1396 ounces of silver per ton, and 64 bags weighing 4 tons and containing 5520 ounces, or an average of 1380 ounces per ton have been raised, bagged, and sampled.—Ore dispatched: 181 bags, weighing 9 tons 4 cwts., and containing 14,352 ounces of silver, have been despatched from the mine.

MYSORE.—R. Hancock, May 2: Mining operations for fortnight ending April 30: 1460 crosscut west from Rowse's shaft driven 21 feet 6 inches, making a total distance driven of 37 feet 6 inches. 1360 feet level north south of crosscut has been driven 3 feet, making a total distance driven of 106 feet 4 inches. The lode is 1 foot wide, assaying 2 ounces 5 dwts. 17 grains. The rise in the back of this level has been put up 12 feet 6 inches, making a total height of 100 feet. The lode is 1 foot 6 inches wide, assaying 13 dwts. 1 grain. 1360 feet level north of winze has been driven 31 feet 6 inches, making a total distance driven of 99 feet. The lode is 5 feet wide, assaying 3 dwts. 22 grains. The winze in the bottom of this level has been sunk 10 feet 6 inches, making a total depth of 45 feet 6 inches. The lode is 3 feet wide, assaying 7 dwts. 19 grains. The rise in the back of the 1260 feet level north has been put up 13 feet 6 inches, making a total height of 27 feet 6 inches. The lode is 5 feet wide, assaying 1 ounce 6 dwts. 3 grains. There are four stopes in the back of this level, the average width of the lode being 6 feet, giving an average assay of 17 dwts. 4 grains. There are three stopes in the back of the 1260 feet level south, the average width of the lode being 2 feet, giving an average assay of 2 ounces 6 dwts. 22 grains. There are four stopes in the back of the 1160 feet level north, the average width of the lode being 2 feet, giving an average assay of 1 ounce 5 dwts. 3 grains. The rise in the back of the 1160 feet level south has been put up 12 feet 6 inches, making a total height of 25 feet 6 inches. The lode is 2 feet wide, assaying 2 ounces 12 dwts. 5 grains. There are three stopes in the back of the 1060 feet level north, the average width of the lode being 1 foot 6 inches, giving an average assay of 1 ounce 16 dwts. 14 grains. We have two pares of men stripping down side in the bottom of this level, in which the lode is 2 feet 3 inches wide, assaying 15 dwts. 15 grains. We have a pare of men engaged stripping down side in the back of the 990 feet level north, in which the lode is 1 foot wide, assaying 5 dwts. 5 grains. The lode in the stope in the back of the 890 feet level north is 3 feet wide, assaying 3 dwts. 6 grains. We have a pare of men engaged stripping down side in the back of this level, in which the lode is 1 foot wide, assaying 3 dwts. 6 grains. The 780 feet level north end has been driven 18 feet, making a total distance driven of 452 feet. The lode in the stope in back of this level is 3 feet wide, assaying 7 dwts. 19 grains. The end in the 620 feet level north of cross cut has been driven 4 feet 2 inches, making a total distance driven of 230 feet 6 inches. There is nothing here to report. There are two stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 1 ounce 17 dwts. 4 grains.—620 Feet Level South of Cross Cut: The rise in the back of this level has been put up 4 feet 8 inches, making a total height of 130 feet. The lode has become pinched. The lode in the stope in the back of the 620 feet level south is 1 foot 6 inches wide, assaying 9 dwts. 2 grains. The 466 feet level north No. 1 crosscut has been driven 14 feet 6 inches, making a total distance driven of 85 feet 9 inches. At this point we intersected the lode, which is at present 6 inches in width. We shall continue the driving for a few feet further to give us room preparatory to starting driving on the lode. The lode having been struck at its southern end, doubtless accounts for its smallness; on driving north it should increase in size. The rise in the back of the 400 feet level north has been put up 11 feet 6 inches, making a total height of 120 feet 6 inches. The lode is 2 feet wide, assaying 2 dwts. 14 grains. The drift north on the quartz met with in the eastern side of the 236 feet level north has been driven 15 feet 6 inches, making a total distance driven of 26 feet 6 inches. The lode is 1 foot wide, assaying 2 ounces 18 dwts. 6 grains. The lode in the two stopes in this level averages 1 foot wide, assaying 2 ounces 3 dwts. 6 grains. The rise in the back of this level to meet the incline shaft has been put up 27 feet, making a total height of 86 feet. We are now in old workings, the quartz from which assays 7 dwts. 19 grains. Incline shaft has been sunk and timbered 40 feet 6 inches, making a total depth of 93 feet 6 inches. There are two stopes in the back of Taylor's shaft, 400 feet level north, the average width of the lode being 2 feet, giving an average assay of 1 ounce 4 dwts. 19 grains. Gilbert's shaft, 650 feet level north has been driven 23 feet 6 inches, making a total distance driven of 301 feet. There is nothing here to report. There are two stopes in the back of the 520 feet level north, the average width of the lode being 1 foot 9 inches, giving an average assay of 13 dwts. 16 grains. The lode in the stope in the back of the 520 feet level south is 1 foot wide, assaying 14 dwts. 8 grains. There are two stopes in the 360 feet level north, the average width of the lode being 2 feet, giving an average assay of 1 ounce 12 dwts. 4 grains. There are four stopes in the 290 feet level north, the average width of the lode being 2 feet 1 inch, giving an average assay of 13 dwts. 20 grains. There are two stopes in the 290 feet level south, the average width of the lode being 3 feet, giving an average assay of 3 dwts. 6 grains. Taking away arches of ground in the back of the 180 feet level south, lode 2 feet 9 inches wide, assaying 16 dwts. 23 grains. Tennant's shaft has been sunk 10 feet 3 inches, making a total depth of 79 feet. There is a small quantity of quartz in the lode, assaying 4 dwts. 13 grains. The rise in the back of the 520 feet level north has been put up 13 feet 6 inches, making a total height of 50 feet 6 inches. The lode is 2 feet wide, assaying 6 dwts. 12 grains. There are two stopes in the back of this level, the average width of the lode being 4 feet 6 inches, giving an average assay of 1 ounce 7 dwts. 4 grains. The winze in the bottom of the 360 feet level north, south of crosscut, has been sunk 4 feet, making a total depth of 22 feet. The lode is 1 foot 6 inches wide, assaying 6 dwts. 12 grains. The 290 feet level south, south of crosscut, has been driven 3 feet, making a total distance driven of 68 feet 6 inches. The lode is 8 inches wide, no assay made. The lode in the stope in the back of the 290 feet level south, north of cross cut, is 1 foot wide, assaying 1 ounce 12 dwts. 16 grains. Schaw's shaft 450 level north cross cut east has been driven 1 foot 6 inches, making a total distance driven of 17 feet 6 inches. The No. 3 rise in the back of this level has been put up 19 feet, making a total height of 125 feet. The lode is 1 foot 6 inches wide, assaying 6 dwts. 12 grains. The winze in the bottom of this level has been sunk 3 feet 6 inches, making a total depth of 72 feet 3 inches. The lode is 1 foot 9 inches wide, assaying 1 ounce 0 dwt. 21 grains. The lode in the stope in the back of this level is 1 foot 3 inches wide, assaying 1 ounce 19 dwts. 4 grains. In the 450 feet level north, south of cross cut, there are two stopes in the back, the average width of the lode being 2 feet 3 inches, giving an average assay of 15 dwts. The winze in the bottom of the 320 feet level north has been sunk 1 foot 9 inches, making a total depth of 149 feet 3 inches. The lode is 2 feet wide, assaying 9 dwts. 2 grains. The rise in the back of the 320 feet level, north of cross cut, has been put up 6 feet 3 inches, making a total height of 56 feet 3 inches. There is nothing here to report. The lode in the stope in the back of this level is 1 foot wide, assaying 4 dwts. 13 grains. The end in the 320 feet level, south of cross cut, has been driven 3 feet 3 inches, making a total distance driven of 159 feet 9 inches. The lode is 1 foot wide. No assay made. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 2 ounces 3 dwts. 6 grains. The 220 feet level north has been driven 3 feet 9 inches, making a total distance driven of 249 feet 9 inches.—McTaggart's shaft 320 feet level north has been driven 13 feet 3 inches, making a total distance driven of 184 feet 3 inches. The lode is 1 foot wide, assaying 9 dwts. 2 grains. Glen shaft 250 feet level north has been driven 12 feet 9 inches, making a total distance driven of 1312 feet 6 inches. There is nothing here to report. The crosscut east in this level has been driven 3 feet 1 inch, making a total distance driven of 239 feet 4 inches. Ribblesdale's shaft has been sunk 14 feet 6 inches, making a total depth of 267 feet 6 inches; 1060 crosscut west has been driven 9 feet, making a total distance driven of 420 feet. We have now suspended the driving, and the machine is engaged cutting out side preparatory to starting the rise. The crosscut east from Williams's shaft at the 173 feet level has been driven 4 feet, making a total distance driven 32 feet.—East Prospect Shaft: Driving south 6 feet from the south end of No. 2 crosscut in the crosscut east has been driven 30 feet, making a total distance driven of 60 feet. The health of the camp is good.

MYSORE REEFS.—Fortnightly report of Captain M. Scantlebury, mine agent, dated May 2: Underlie shaft has been sunk 11 feet 3 inches, which now makes a depth of 253 feet 6 inches from surface. The lode is showing a good hanging wall, but is intermixed very much with country rock. We have to-day started to drive north and south on lits course, and have no doubt but in a very short time there will be something good to report.—Vertical shaft: The 200 feet level north of the crosscut has been advanced 16 feet 6 inches, now 35 feet 6 inches from crosscut. The lode is 3 feet wide, composed of dark blue quartz with a little arsenical pyrites, and worth according to assay 7 dwts. 19 grains of gold to the ton. 200 feet level south of crosscut has been extended 16 feet 6 inches, now 34 feet 6 inches from crosscut. During the past week the lode has been disordered by a band of black rock crossing it. The consequence is that the assay value is low, 2 dwts. of gold to the ton. We are now getting away from the influence of this, and have a leader of dark blue quartz against the hanging wall 15 inches wide, assaying 12 dwts. of gold to the ton. The rock in these two drives is very close and hard, but seeing that the lode is so well defined, and carrying such a good hanging wall, there is not the slightest doubt, in my opinion, that the lode is a true fissure, and when developed will produce an enormous quantity of good milling ore.—Trial shaft: On the western run of old workings, the crosscut east to intersect the old workings has been advanced 5 feet, now 15 feet 6 inches from shaft. We have had a deal of trouble with the water during the past week, so much that we have been obliged to put down another 3 inch lift to keep it. I think that we must be getting near the old workings, and are tapping the water.—Erection of stamps: The boiler is on the ground and built in. The masons have commenced to build the chimney, and ground is being excavated for tanks.

NIGEL.—The manager's report for the month of March gives the following particulars:—The total number of feet cut during the month in sinking and driving is 496 feet. The battery crushed 2153 tons of quartz, yielding 2273 ounces 10 dwts. of smelted gold. At the cyanide works there was treated 1642 tons of tailings, which gave 1972 ounces of bullion.

NAMAQUA.—Abstract of superintendent's report for March: Tweenfontein Mine: The sinking of the shaft below the 115 fathom level has been resumed. The part of the lode carried is mineralised and spotted with copper throughout, Worth 2 tons of ore per fathom. The 115 fathom level east is now being driven 9 feet high by 9 feet wide. Stoping ground of fairly good value is being opened up. Worth 6 tons of ore per fathom. The 105 fathom level east is again being driven 9 feet by 9 feet, and shows ore ground on each side, Worth 6 tons of ore per fathom. The 105 fathom level east No. 25 winze, is now in fairly productive ground, approximately the same ore body as at the 115 fathom level. The men in the 105 fathom level west have been employed taking out the south side, with the view of extending the driving westward. Worth 7 tons of ore pe

fathom. In the 95 west the lode at this point is still small, though it has slightly improved in value. Worth 3 tons of ore per fathom. The lode in the 95 fathom level, No. 26 winze, is massive and highly mineralised, but of low grade. Worth 3 tons of ore per fathom. The 85 fathom level west is without change. Worth 3 tons of ore per fathom. The 85 fathom level, No. 21 winze, gives good ventilation here, and also at the level above. Worth 3 tons of ore per fathom.—Stopes: The 105 fathom level west in back and on south side these stopes continue to yield well Worth 10 tons of ore per fathom. The 95 fathom level west bottom level stope has improved in value since last report, it being now worth 10 tons of ore per fathom.—New Shaft: The lode in the 25 fathom level east is still disordered, and is very small. Worth 2 tons of ore per fathom. The 25 fathom level west continues to open up a valuable section of ground. Worth 10 tons of ore per fathom.—Phillips's Shaft: There is no change at this point.—Shipping: The *Lord Clyde* left Port Nolloth for Swansea on the 2nd May with about 880 tons of ore. The *Golconda* arrived at Port Nolloth to load on the 14th May.—Output for April: 400 tons of ore of 30 per cent.

NUNDYDROOG.—May 2: The superintendent writes: Report of work done for the month of April: Taylor's shaft sunk 16 feet, total depth 1048 feet. The quartz in the shaft is 1 foot wide, and assays 6 dwts. 12 grains per ton. 1000 north driven 77 feet, total length 427 feet. The lode is very small, 2 inches wide, assaying 3 dwts. 6 grains per ton. 1000 south driven 51 feet, total length 198 feet. The lode has become smaller, being now 3 inches wide, and assaying 9 dwts. 18 grains per ton. 920 north from No. 2 winze driven 65 feet 6 inches, total length 74 feet 6 inches. The lode has opened out, being now 3 feet wide, and assaying 1 ounce 12 grains per ton. 840 north No. 3 winze sunk 25 feet, total depth 41 feet 6 inches. The lode has much improved, and is now 5 feet wide, assaying 1 ounce 2 dwts. 18 grains per ton. 840 north stope in back, ground stoped 22 fathoms in a lode 3 feet wide, assaying 12 dwts. per ton. 760 north stope in back, ground stoped 12 fathoms in a lode 2 feet wide, assaying 15 dwts. per ton. 680 north driven 65 feet, total length 187 feet; the end is still hard. We are lengthening the main shaft between the 760 and 840 levels; we have also crosscutted 11 feet west for balance bob. Kennedy's shaft sunk 7 feet, total depth 528 feet. 520 north driven 12 feet, total length 12 feet, The lode looks much better now, being 3 feet wide, and assaying 1 ounce 12 grains per ton. 520 north crosscut west driven 28 feet, total length 41 feet, The ground is still very hard. 440 south driven 61 feet, total length 287 feet. The lode is rather smaller, being now 9 inches wide and assaying 10 dwts. 18 grains per ton. 440 south rise in back risen 12 feet 6 inches, total height 12 feet 6 inches. The lode is mixed, and only gives a trace of gold. 440 north driven 80 feet, total length 423 feet. The lode is looking well, and is now 5 feet wide, assaying 1 ounce per ton. 440 north stope in back ground stoped 25 fathoms in a lode 5 feet wide, assaying 1 ounce 3 dwts. 18 grains per ton. 370 north stope in bottom ground stoped 4 fathoms in a lode 4 feet 6 inches wide, assaying 1 ounce 9 dwts. 6 grains per ton. 300 south cross cut west driven 29 feet 6 inches, total length 32 feet 6 inches. This is now suspended. 370 south rise in back risen 8 feet, total height 29 feet when we holed north shaft. North shaft sunk 27 feet, total depth 377 feet; after holing the 370 south rise we resumed sinking in the bottom of the 370 level, and are now 7 feet below it. The hand labour stopes, &c., are as follows:—920 north drive ground cut 7 feet, total measurement 83 feet. Lode 1 foot wide, assaying 2 dwts. 2 grains. 920 south drive ground cut 9 feet, total measurement 107 feet. Lode 6 inches wide, assaying 4 dwts. 6 grains. 680 north rise and stope ground cut 11 feet 6 inches. Lode 1 foot wide, assaying 6 dwts. 12 grains. 680 north No. 1 winze ground cut 7 feet, total measurement 36 feet. Lode 3 inches wide, assaying 3 dwts. 6 grains. 680 north No. 1 bottom stope ground cut 22 feet 6 inches. Lode 1 foot wide, assaying 8 dwts. 18 grains. 680 north No. 1 back stope ground cut 26 feet 6 inches. The lode is 2 feet wide, assaying 9 dwts. 18 grains. 680 north, No. 2 back stope, ground cut 14 feet 6 inches. Lode 1 foot wide, assaying 10 dwts. 600 north, No. 1 bottom stope, ground cut 29 feet. Lode 2 feet wide, assaving 1 ounce 0 dwt. 12 grains. 600 north, No. 2 bottom stope, ground cut 25 feet. Lode 1 foot 6 inches wide, assaying 10 dwts. 18 grains. 600 north, No. 3 bottom stope, ground cut 31 feet 6 inches. Lode 1 foot wide, assaving 12 dwts. 600 north, No. 4 bottom stope, ground cut 21 feet 6 inches. Lode 10 inches wide, assaving 9 dwts. 18 grains. 600 north, No 5 bottom stope, ground cut 25 feet 6 inches. Lode 1 foot 6 inches wide, assaying 8 dwts. 18 grains. 600 north, No. 6 bottom stope, ground cut 12 feet. Lode 1 foot wide, assaying 7 dwts. 12 grains. 600 north, intermediate, ground cut 8 feet 6 inches, total measurement 16 feet. Lode 3 inches wide, assaving 5 dwts. 12 grains. 600 north, No. 1 back stope, ground cut 20 feet. Lode 9 inches wide, assaving 13 dwts. 600 north, No. 2 back stope, ground cut 25 feet 6 inches. Lode 1 foot wide, assaying 7 dwts. 12 grains. 520 north, No. 1 bottom stope, ground cut 18 feet. Lode 1 foot 3 inches wide, assaying 12 dwts. 520 north, No. 2 bottom stope, ground cut 16 feet 6 inches. Lode 1 foot wide, assaying 7 dwts. 12 grains. 520 north, No. 3 bottom stope, ground cut 24 feet. Lode 1 foot wide, assaying 9 dwts. 18 grains. 520 north, No. 1 back stope, ground cut 21 feet. Lode 1 foot wide, assaying 14 dwts. 520 north, No. 2 back stope, ground cut 15 feet 6 inches. Lode 1 foot 6 inches wide, assaying 10 dwts. 18 grains. 520 north, No. 3 back stope, ground cut 14 feet 6 inches. Lode 10 inches wide, assaying 7 dwts. 370 north No. 1 back stope, ground cut 24 feet. Lode 1 foot wide assaying 11 dwts. 6 grains.—Kennedy's 95 north No. 1 bottom stope ground cut 23 feet. Lode 2 feet wide assaying 5 dwts. 12 grains. 95 north No. 2 bottom stope, ground cut 20 feet. Lode 1 foot wide assaying 14 dwts. 160 south No. 1 back stope, ground cut 7 feet 6 inches. Lode 6 inches wide assaving 1 ounce 8 dwts. 6 grains. 160 north intermediate, ground cut 10 feet, total measurement 145 feet. Lode 10 inches wide assaying 3 dwts. 160 north intermediate, No. 1 winze, ground cut 9 feet, total measurement 9 feet. Lode 4 inches wide assaying 4 dwts. 6 grains. 300 south crosscut west, ground cut 2 feet, total measurement 2 feet. 300 south No. 1 rise and stope, ground cut 10 feet 6 inches. Lode 1 foot 6 inches wide assaying 2 ounces. 300 south No. 2 back stope, ground cut 14 feet. Lode 1 foot wide assaying 5 dwts. 12 grains. 300 south No. 3 back stope, ground cut 30 feet. Lode 4 feet wide assaying 9 dwts. 18 grains. 300 north No. 1 rise and stope, ground cut 22 feet 6 inches. Lode 4 feet wide assaying 16 dwts. 6 grains. 300 north No. 2 back stope, ground cut 17 feet. Lode 3 feet 6 inches wide assaying 18 dwts. 12 grains. 370 north No. 1 back stope, ground cut 30 feet. Lode 1 foot wide assaying 1 ounce 3 dwts. 18 grains.—Mills: Both mills and tailings machinery are running well.—Health: The health of the camp is good.—Mill samples. Old mill samples: Rough quartz through stonebreaker 19 dwts 12 grains: smalls 17 dwts. 6 grains; tailings 5 dwts.—New Mill Samples: Rough quartz through stonebreaker 18 dwts.; smalls 14 dwts.; tailings 4 dwts. 18 grains.

NINE REEFS.—Fortnightly report of Captain John Woolcock mine agent, dated May 2: Vyvyan's Shaft: This shaft has been sunk 9 feet 4 inches, making a total depth of 78 feet 8 inches below the 380 feet level. We have 1 foot 4 inches further to sink to reach the 460 feet level, after which we shall commence to drive north and south from shaft. The north level will be driven about 20 feet to give us room for fixing our air winch and depositing the stuff from the shaft when we commence to sink below that level. The south level will be driven the required distance to enable us to cut ground for cistern plat, &c. The lode matter in the shaft is about 4 feet wide, and at times we get colours of gold in pan washing, but not of sufficient value to report.—Bennett's Shaft: The crosscut west at the 145 feet level north of this shaft has been driven 18 feet 5 inches, making a total distance from the level of 230 feet 7 inches. On Friday we intersected a lode about 15 inches wide underlying west about 60°. It is composed of schist and carrying two small leaders of quartz and a little carbonate of lime. We have taken two or three samples from the quartz, but regret to say so far they have not been auriferous. The ground to the west of this appears to be harder, but it is still damp, and the crosscut is continued.—South Shaft: Unsatisfactory progress has been made in the sinking of this shaft, which has been only 4 feet 10 inches during the past fortnight, making a total depth from surface of 115 feet 10 inches. We have been in a rather troublesome floor of ground, and have had a little hindrance through the timber, but not sufficient in my opinion to account for the small amount of work done. We have the same contractor that started the shaft from surface, who has done good work and given entire satisfaction until now, but unless more work is done in the coming week I shall be obliged to change the contractor. We have no trouble now with the water or stuff, which is being drawn by the engine, and I hope soon to be able to sink the shaft with rock drills. The timber has been the hindrance hitherto, but the ground in the bottom of the shaft is more settled and hard.—Prospecting: The No. 1 shaft has been sunk 10 feet 10 inches, total depth from surface 45 feet 4 inches. The lode is 20 inches wide, and judging from the last two or three samples, the yield for gold is improving as we get deeper, but it is not yet of sufficient value to report. The No. 4 shaft has been sunk 5 feet 3 inches, making a total depth of 78 feet from surface. The lode here is 9 inches wide, and gives colours of gold in pan washing. The ground is very much harder, and letting out an increased quantity of water.—Surface: There is nothing that calls for special comment under this head. All our machinery, &c., is in good order, and working well, and our ordinary surface work is going on with regularity.—Health: I am pleased to say the health of the camp is very good.

POORMAN CONSOLIDATED.—Under date of April 29, the superintendent of the mines reports as follows:—On April 21 I wired you: The mill has been started to-day. We are now crushing ore from the Poorman. Mill working splendid. Mine is looking better than ever. And again, on April 28, as follows: Snow falling heavily; roads blocked. Mill has been shut down three days. Have started hauling by sleighs. Mill started again on April 30. New mill great success. Now saving by the new process 98 per cent. of the assay value of ore, reducing cost per ton to $3, instead of $12 under old process. Shall arrange to clean up monthly. Poorman stopes looking splendid. Assay average per ton of Oso in Belle Peck, $500. I now confirm the same. On April 21, at noon, we started the new mill, and it ran continuously until April 23, on which date we had one of the worst snowstorms of the season, the road being broken up for both wagon and sleigh. On the 27th we started hauling the ore from the mine to the mill by sleighs, and hope this will be our last stop on any account for many months. Everything in and about the mill worked in a most satisfactory manner, and the process of amalgamating in the battery and on plates, and from there to the Frue vanners, has been demonstrated to be an unquestionable success on the Poorman Consolidated Company's ore. The differences of the cost of milling the Poorman ore by the present free gold process is a saving of $9 per ton, and a saving of the assay value of the ore to 98 per cent., instead of costing under the pan amalgamating combination process $12 per ton, and only saving 65 per cent. of the assay value. In the pan amalgamation process the former mill men lost all the copper pyrites, which, on this mountain, carry a percentage of gold. This is now all saved by concentration at a trifling expense. In figuring the cost of mining and milling under this new system, it should not exceed from $5 to $5½ per ton. We have also reduced the cost of transportation from $2 to 80c. per ton. Since my last report we have extended the Oso vein in the Belle Peck tunnel north 5 feet, showing a vein of 12 inches wide, with a streak of 6 inches, which assays $500 per ton, and shows gold throughout the rock to the naked eye This is the rich body of ore which we have in the Summercamp winze, 345 feet above us, and which milled $275 per ton. We have extended south 13 feet. Vein 6 inches wide, of not quite as high grade, but with all the appearance of widening out in a very few feet.—Poorman: We have started three additional stopes, making eight stopes, 50 feet apart; total 400 feet. They all continue to look well, and show the vein throughout the stopes from 1 foot to 3 feet wide, of very high grade ore. We have numbered these stopes from one to eight, and will inform you from which, from time to time, we are stoping the ore. In the main Poorman tunnel the face shows a body of ore of the same character as the stopes, of 2 feet 6 inches wide. In stopes 9 and 10 in Belle Peck we have done very little for the last two weeks, on account of having no place in which to store the ore. The mine throughout continues to improve, and I see no reason why it should not be a continuous dividend-payer.

SOUTH-EAST MYSORE.—Fortnightly report of Captain M. Scantlebury, mine agent, dated May 2: Beresford's shaft has been sunk 11 feet 6 inches, which makes a depth of 104 feet 9 inches on the course of the lode and 202 feet 6 inches from surface. The lode is 5 feet wide, and improving in value. Four samples have been assayed with the following result:—No. 1 7 dwts. 19 grains, No. 2 8 dwts. 20 grains, No. 3 10 dwts. 10 grains, No. 4 15 dwts. Pigott's shaft has been sunk 8 feet, which now makes a depth of 180 feet from surface. The lode cannot be underlying so fast as the old workings would indicate at the 50 feet level. We have now commenced to cross cut east to intersect it.—Surface: The air compressor is almost ready to work. We are waiting for a piece of steam pipe to arrive from Madras.

MOUNT ZEEHAN (Tasmania).—Manager writes for week ended April 10: Argent Section: Main Engine Shaft: No. 6 lode, 72 feet level south, extended 12 feet, total 97 feet. Ore raised, 60 tons 9 cwts. Splendid seconds, from which we picked 2 tons 10 cwts. prills, assaying 71 per cent. lead and 93 ounces silver per ton. Lode 4 feet 6 inches wide, with good ore throughout. Intermediate drive south extended 7 feet, and suspended, as am of opinion we are on the cap of lode. Stoped 24 tons good seconds, from which we picked 1 ton 4 cwts. prills, same assay as above. 132 feet south extended 9 feet, total 33 feet. Have fully 30 feet more to drive before reaching shoot in upper level.—132 Feet North: Ore raised, 69 tons 11 cwts., fair seconds.—Frances, or No. 3, Lode: Prospect (or No. 2) shaft has been sunk 4 feet, total 38 feet 8 inches. Ore raised 11 tons 4 cwts., fair quality seconds. Lode carries good ore for 4 feet in width.—Kelly's Lode: Trial shaft has been squared down, windlass hung, and sinking will be continued. Concentrator has been run 54 hours and milled 165 tons seconds for 35 tons 9 cwts. concentrates, containing about 26½ tons of lead, and 2683 ounces silver.

AFRIKANDER.—Having just returned from a visit of inspection to your property at Klerksdorp, I beg to lay before you the results:—The considerable quantity of gold won from the mine had proved that we possess a valuable property, but we were not working profitably, and the object of my visit was to find out the obstacles to our prosperity and remove them. I confidently believe that this object has been fully attained, and that the prospects of the company are excellent. Among the matters requiring reform the most salient was the contract for the treatment of the tailings by the cyanide process. The principal conditions of this contract were:—1. That our company was bound to deliver all its tailings during two years to the contractors to be treated. The company might, however, limit its production of tailings to 700 tons per month.—2. The contractors were to receive, out of the value of the gold produced, 12s. per ton of tailings treated, and the remainder, if any, was to be divided equally between the contractors and the company. The value of the gold won by the cyanide process has not at any time since the commencement of the operations been so much as 12s. per ton of tailings treated, and consequently the company has not been entitled to receive anything for the tailings delivered for treatment. The contractors, however, have made a handsome profit, in which our company, as a shareholder in their syndicate, has participated. The interests of the company required that either the terms of this contract should be greatly modified or the contract cancelled. Failing the attainment of either of these alternatives, the only course open to our company was to reduce the output so as to limit the delivery of tailings to the minimum quantity stipulated for in the contract, and thus practically deprive the contractors of profit. I considered it desirable to stop the production of tailings during the negotiations, and accordingly both mine and mill were shut down. In result, the cyanide plant, machinery and buildings which had been erected at a cost of £3600, were bought outright for our company for £3,500, payable as to £2250 by the surrender of 1713 £1 shares in the Cyanide Syndicate, which were taken at a value of £2250, balance paid in money £1250, to which was added as compensation to the manager of the Cyanide works for the cancelment of his engagement £250, total amount paid to complete our ownership of the cyanide plant £1500. Our company is now in possession of the works, and the whole of the profit derivable from the treatment of the tailings will henceforth belong to it. To enable me to form a correct judgment as to the mining and milling operations, I obtained the assistance and advice of Mr. James Mitchell, of Johannesburg. Mr. Mitchell recommended a complete change in the system of mining—viz., that instead of taking out the whole reef matter which is about 6 feet wide "the stopes should only be carried wide enough to include the two bottom leaders which would mean an average width of about 2 feet 6 inches; this, with sorting, should give 7 dwts. over the plates, and 5 dwts. in cyanide, or a value of 36s. per ton at an approximate cost of 26s. per ton." (*Vide* Mr. Mitchell's report.) Mr. Mitchell's report, and the contract for the purchase of the cyanide works, may be seen by the shareholders at the office of the company. With the results of Mr. Mitchell's investigation before me, the question of the future management of the company's property became an anxious one. I entered into treaty with several mine managers who have a high reputation for successful management. Three of these travelled to Klerksdorp at their own expense, and gave many days to the examination of the mine. All expressed the same judgment as Mr. Mitchell had given as to the system on which the mine should be worked, but we could not agree as to the terms on which they should serve the company. After careful consideration of the situation I decided to offer the management to Mr. Mitchell himself, and the short result of much negotiation is that he has undertaken the work for two years on the following terms, which I think cannot fail to be satisfactory to the shareholders:—1, Mr. Mitchell is to provide half of the new working capital he requires, the other half being provided by the company.—2. Mr. Mitchell is not to be paid any salary, but is to receive as his remuneration one-third of the net profit, after the payment of all expenses of working and administration. We have thus secured for the management of our property the skill and experience of a first class man, without incurring the fixed charge of the high salary which is usually paid for this service. As Mr. Mitchell is recognised as one of the most successful miners in the Transvaal, I submit that his undertaking the management on the above terms is a most weighty testimony to the value of our property, and convincing proof of his confidence that a good revenue can be obtained from it. The contract with Mr. Mitchell may be seen at the company's office. I trust the shareholders will agree with me in believing that the measures described in this circular are calculated to place the prosperity of the company beyond doubt.—John Bell, Chairman.

SANTA BARBARA.—The directors of the Santa Barbara Gold Mining Company (Limited) are in receipt of advices from Mr. T. S. Treloar, dated Pari, April 10 and 19:—The mineral delivered at the spalling floors from the mine during the month of March amounted to 627 tons, of which 156 tons were rejected as refuse stone and 471 tons treated at the stamping mills. In addition to this 471 tons of stone, 10 tons of residual sand was treated, together with 21 tons of inferior stone selected from the refuse stone laid aside in previous years. The total produce obtained was 1509 oitavas of amalgamated gold, or equal to 3·204 oitavas per ton stamped. This produce of 1509 oitavas of gold, valued at 8s. 6d. per oitava, amounts to £641 6s. 6d. sterling, and the estimated cost for the month, at Exchange 9¾d., amounted to £866 15s. 5d., thus showing an apparent loss of £225 8s. 11d. for the month of March; against this amount, however, of £225 8s. 11d., should be calculated an estimated gain of about £190 during March in respect of difference in exchange, thus leaving a balance of £35 8s. 11d. as estimated loss for the month. The Mine Captain reports as follows for March; — No. 8 Stope south has been extended 1 fathom 1 foot. The lode has maintained its size, and presented no change to note.—No. 9 Stope South (upper half): This stope has been extended 2 fathoms 2 feet 6 inches. The lode has averaged 7 feet wide, 5 feet yielding stone of fair quality, and the remaining 2 feet being a mixture of sandstone and hornblende. No. 9 winze has been sunk 6 feet. The lode has been small and inferior in quality; we expect to hole this winze to the No. 9 end in a few days. No. 9 end south has been driven 4½ feet. The lode has been small and poor.—Timberwork: The timber men have been engaged cutting hitches and headings for the logs where required, repairing skip and tramroads, skids to bucket rods, turning the working barrel of the drawing lift in Holland's shaft, and repairing breakages to wire ropes; eight logs have been put in the No. 8 stope south to keep up scales of ground, three logs put in the No. 9 stull south, and lathed with Candeia poles and loaded with unproductive stone to carry tramroad in bottom of No. 8 level; one log put in the No. 7 stope south to keep up shales of ground; 10 feet run of tramroad laid in the No. 8 level and 14 feet run renewed; 41 feet run of side runner and two setts changed on incline; two sockets renewed in wire ropes, also seven sets of skids changed on bucket rods, working hand on drawing lift in Holland's shaft turned and patched where worn through. The output of stone from the mine is 951 wagon loads of which 432 came from the No. 8 stope, 478 from the No. 9 stope, and 41 from the No. 9 end, &c. The number of wagon loads per ton is 59·19, and the total number of holes drilled in the mine 1245, of which 482 were in the No. 8 stope, 483 in the No. 9 stope, 168 in the No. 9 winze, and 110 in the No. 9 end.

PAHANG CORPORATION.—April 6; I beg to submit to you progress report of mining operations for the month of March: Pollock's Vertical Shaft: Progress in sinking has again been slow, caused principally through meeting with an extraordinary hard bar of country rock. The depth sunk was 10 feet, making the total below surface 208 feet. A favourable change in the rock has now been met with, which I think will enable us to make better progress this month — No. 1 below adit: The drive west was advanced a further distance of 28 feet; total from crosscut 209 feet. The lode is still of good size, and producing ore of good quality. The ore coming to hand from the leading stope over the drive is also of good quality. The winze B in the adit level was again started during the month, when, after the depth had been increased by 2 feet, it was again flooded through heavy rains. The water has been taken out, and sinking resumed this month. The total depth is now 32 feet 6 inches. The drive from Campbell's has been advanced a further 52 feet, making the total length from Campbell's cross cut 652 feet. The lode at times during the month has been rather pinched in size, but has carried payable ore the whole of the distance driven. I expect this drive and the one coming west from Pollock's shaft to intersect each other about the middle of current month, after which I will be able to send more ore to the mill than can be dressed with the present appliances. The stopes on the Campbell's side are yielding ore of very good quality. The drive back west from the bottom of C winze was advanced a further 10 feet, total length 60 feet, at which point the slide was met with and the tinstone disappeared.—Jeram Batang: The drive west No. 2 above adit has been further advanced a distance of 21 feet, total from crosscut 414 feet. There is now a width of 2 feet of payable ore in the end. We have ceased driving further here at present, as we consider the prospect is quite encouraging enough to open up the levels below, so the No. 1 above adit has been restarted westward this month, and if the shoot of payable ore met with in No. 2 above adit trends eastward which I think it will), and as the adit crosscut and No. 1 above are situated about 60 feet further west than No. 2 above adit, the distance to drive in the lower levels before cutting payable ore will be not near so far, and I also think that an improvement in the quality of the ore will be met with in the adit, and No. 1 above somewhat similar to that met with in the eastern shoot at these levels. I think it will be time enough to restart the adit level west after the battery is finished and started to work.—(Signed) Wm. Straughan.

LONDON CHAMBER OF COMMERCE.

ENGINEER AND ALLIED TRADES' SECTION.

THE annual general meeting of this section was held on Tuesday, 22nd May, 1894, at 2.30 p.m., at the offices of the Chamber, Botolph House, Eastcheap, Sir EDWARD H. CARBUTT, Bart., Chairman of the Section, presiding.

Sir E. H. Carbutt was re-elected Chairman, and Sir Douglas Fox Deputy-Chairman for the ensuing year.

Mr. Fortescue Flannery, J.P., and other prominent engineers were nominated as representatives of the engineering trade for service on the Jury of Awards of the Antwerp Exhibition.

Mr. WILLIAM SHELFORD, Mem. Council Inst.C.E., called the attention of the section to the question of the extension of railways in India, and to a circular, dated Simla, September 15, 1893, issued by the Indian Government, stating the "terms upon which the Government of India are prepared to consider offers for the construction, by the agency of private companies, of branch lines or extensions of existing railways, to be worked, when constructed, by the main line administrations," and showing the concessions offered to investors. After referring to the first four concessions, viz. :—

"1. The free use of land.

"2. The provision of rolling stock and the maintenance and working of the new lines at favourable rates by the main line administrations.

"3. The free use of surveys, &c., made at State expense.

"4. The carriage of stores and materials over State lines at favourable rates."

He proceeded to explain and criticise the fifth concession, viz. :—

"5. The grant of a limited rebate from the main line earnings towards ensuring the proprietors of the new lines a dividend of 4 per cent. per annum on the approved capital expenditure."

This meant, according to Clause 7 of the circular, that a maximum rebate of 10 per cent. should be allowed to the new line on the interchanged traffic on the main line. Taking the value of this traffic at £100, the expenses would cost £40, leaving £60 clear profit, only £10 of which the Government proposed should go to the new line, the remaining £50 going into the pockets of the main or Government line. As this interchanged traffic would be all additional traffic to the main line, they could thus afford to allow a maximum rebate of considerably more than 10 per cent. In one case, where all the materials were available to enable a fair estimate to be made, he found the full rebate of 10 per cent. only brought it up to 7 per cent. on the capital. It was, therefore, quite clear that a maximum rebate of 10 per cent. was not a sufficient guarantee of dividend to induce capitalists to invest in new railways in India, and in the amount of the rebate lay the whole difference between failure and success. If representations to this effect were made to the India Office, he had no doubt they would receive careful consideration, and if this inducement to capitalists were increased, no doubt a great impetus would be given alike to British and Indian trade.

The CHAIRMAN said the question of railway extension in India was one he had long taken an interest in. When elected to the House of Commons some years ago, the first resolution he put on the paper related to it. The result of conferences with Mr. Gladstone and the India Office in regard thereto was the appointment of a committee to investigate the matter. He recently had a conversation on the subject with the present Secretary of State for India, Mr. H. H. Fowler, who said his main object while at the India Office would be to encourage and promote the extension of railways in India; he would be very glad of any assistance which would aid him in that direction, and would do all he could to make the terms offered by the Government so easy that the railways would be made. He (Sir Edward) said if instead of finding the money to make American Railways which had proved unremunerative Englishmen had invested their money in Indian Railways, it would have been greatly to their advantage. If the Indian rupee had remained at its nominal value instead of sinking to such a low figure, the railways of India would now be paying a dividend of something like 11 per cent. to 12 per cent. He was sure any suggestions or recommendations which might be made would be welcomed by Mr. Fowler.

After considerable discussion, it was agreed to have Mr. Shelford's address printed and circulated among the members of the section, and to further discuss the matter at an adjourned meeting.

THE SUTHERLAND GOLD FIELDS.

It seems likely that the Sutherland gold diggings will be re-opened in a few months, after having been abandoned for 25 years.

The facts known about the mode of occurrence and source of this gold appear to be few and elementary. All the gold obtained was alluvial, and the diggings were along three streams—the Kildonan, Suisgill, and Kinbrace burns. These are tributaries, on the eastern side, of the Helmsdale River, which drains a considerable area in north-east Sutherland. Gold was also found in small rills on the western side, and, as might be expected, in the main river.

The diggings were in terraces of coarse, sandy gravel, which skirt the streams, and in the present detritus of the beds, the rock pockets being the richest. Whether gold was ever found in the parent rock seems uncertain. It may exist finely disseminated in it, and does not appear to be derived from vein quartz. The country drained by the three burns consists of quartz and mica schists traversed by granites, and belonging to that Eastern Highland series over the age and origin of which so much mystery still hangs.

It is not likely that speculation concerning the source of the gold will be very fruitful until many more localities have been searched, and until much more is known of the distribution of the rock groups in East Sutherland. This we may look for before very long, as the Geological Survey is now at work there. Then, perhaps, some connection between the occurrence of the gold and the nature of the rocks may be found, and light may be thrown on a subject which, though not very important (at least at present) from an economic point of view, has always a certain scientific interest.—*Natural Science.*

NORTH STAFFORDSHIRE MINING INSTITUTE.—A meeting of the members of this Institute was held at Stoke-on-Trent on Monday evening, when Mr. R. H. Cole presided. At a previous meeting a paper was read by Mr. J. Tonge, F.G.S., on "Waste of Coal," and the subject was now open for discussion. Mr. J. J. Prest said formerly it was customary to leave probably a third of a seam in the northern coal field in the system of work then adopted; under similar conditions now probably not 5 per cent all round was lost. In fact, many of the old workings were being reopened to recover coal left in former days. A large quantity of slack was buried without any good reason. The chief loss was in the system of leaving barriers surrounding the coal properties of individual proprietors, with the object of protecting themselves against the operations of their neighbours. Speaking of the North Staffordshire coal field, he said, assuming each colliery proprietor had a royalty of 640 acres, or one square mile, and he was compelled to leave a barrier of 40 yards, that would represent about 58 acres of coal in each seam. Assuming also that the area of the coal field was 75 square miles, and there was an average thickness of 75 feet of workable coal, there would be 4350 acres of workable coal abandoned, amounting to 391,500,000 tons, of the value of £9,787,500 at £30 per foot per acre, without taking into consideration its economic value to the consumer at large. With a view of preventing waste, he directed attention to the suggestions of the late Sir George Elliot on the subject, and said he thought they might also do much by the appointment of Drainage Commissioners, who should undertake the entire pumping arrangements in any coal fields. Loss of coal could to a large extent be prevented when new seams of coal had to be opened. Mr. T. E. Storey, Mr. E. B. Wain, Mr. J. R. Haines, Mr. Baylis, Mr W. N. Atkinson, and the President took part in the discussion. It was stated in reference to the drainage that the scheme in operation in South Staffordshire might answer there because the seams were practically flat, whereas in North Staffordshire at one colliery a seam might be worked at a depth of 100 yards, and in the adjoining colliery the same seam might be worked at a depth of 500 yards. The discussion was adjourned.

A PROSPECTOR in the Waitekauri district, says the *New Zealand Herald*, forwarded a small parcel of ore to the Thames School of Mines which he had obtained from a new reef he has discovered. Mr. Park has since treated the same at the school, and has furnished a statement regarding the same, which shows that the ore contains bullion at the rate of 252 ounces 1 dwt. 3 grains per ton, yielding 52 ounces 8 dwts. 14 grains of gold and 200 ounces 12 dwts. 13 grains of silver, or a total value of £222 12s. 3d. per ton. The return is a very good one, but the prospector declines as yet to give any information as to the exact locality of the reef from which the or was taken, other than it is in the Waitekauri district.

TIN TICKETING.

A TICKETING for tin ores was held at Redruth, on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

	Tons cwts.	Per ton.	Value.
Dolcoath No. 1	14 0	£43 5 0	£605 10 0
do No. 1a	14 0	43 10 0	609 0 0
do No. 1b	14 0	43 12 6	610 15 0
Carn Brea No. 1	14 0	38 7 6	537 5 0
do No. 1a	13 0	37 17 6	492 7 6
do No. 1b	13 0	37 15 0	490 15 0
do No. 2	2 0	30 12 6	61 5 0
Wheal Grenville No. 1	32 0	44 2 6	1412 0 0
do No. 2	5 10	26 15 0	147 2 6
Tincroft	15 0	39 7 6	590 12 6
do	15 0	39 2 6	586 17 6
do	3 0	30 5 0	90 15 0
Phœnix United No. 1	17 0	41 12 6	707 12 6
do No. 2	3 0	27 15 0	83 5 0
East Pool No. 1	17 0	37 15 0	641 15 0
do No. 2	1 10	17 10 0	26 5 0
Cook's Kitchen	18 0	44 2 6	794 5 0
West Frances	17 0	42 7 6	720 7 6
South Frances	15 0	42 7 6	635 12 6
Killifreth	14 0	42 2 6	589 15 0
West Kitty	12 10	44 10 0	556 5 0
Wheal Basset	12 0	43 17 6	526 10 0
Wheal Agar	10 0	39 7 6	393 15 0
South Condurrow	8 0	44 7 6	355 0 0
Wheal Kitty	5 0	44 0 0	220 0 0
	304 10		£12,484 12 6

AVERAGE PRICES PER TON.

February 13	£40 10 11	April 10	£41 12 8
February 27	39 3 8	April 24	40 12 3
March 13	40 8 11	May 8	42 0 8
March 28	41 15 6	May 22	41 0 0

COMPANIES AND LEGAL ANNOUNCEMENTS.

. Advertisements are inserted in this column at the rate of 9d. per line with a minimum charge of 7s. 6d.

PATENTS, DESIGNS, AND TRADE MARKS' ACTS, 1883 to 18

NOTICE IS HEREBY GIVEN, that CARL ROTH, of Villa Roth Hennickendorf, in the Empire of Germany, chemist, has applied for leave to amend the Specification filed in pursuance of the Application for Letters Patent, No. 23,417, of 1893, for "Improvements in and Apparatus for Igniting Blasting Charges."

Particulars of the proposed amendments were set forth in the Illustrated Official Journal (Patents) issued on the 16th May, 1894.

Any person or persons may give notice (on Form G), at the Patent Office, 25, Southampton Buildings, London, W.C., of opposition to the amendment within one calendar month from the date of the said Journal.

(Signed) H. READER LACK,
Comptroller-General.

Johnson's and Willcox, 47, Lincoln's Inn Fields, London. } Agents for the said Carl Roth.

THE GOLD FIELDS OF MYSORE (LIMITED).

ISSUE OF 55,000 ORDINARY SHARES.

NOTICE IS HEREBY GIVEN, that for the purposes of the above issue the TRANSFER BOOKS will be CLOSED on SATURDAY, the 26th inst.

By order,
JOHN GARLAND, Secretary.

6 and 7, Queen Street Place, London, E.C.,
May 23, 1894.

MILL'S DAY DAWN UNITED MINES COMPANY (LIMITED), CHARTERS TOWERS.

TRANSFER of SHARES to LONDON REGISTER.

SHAREHOLDERS desirous of having their Shares placed on the London Register are requested to send in their present Certificates in order that they may be transmitted to the Head Office in Charters Towers for the necessary endorsement.

Due notice will be given when the London Certificates are ready to be exchanged for the Official Receipts.

The transfer of shares to the London Register involves no charge to shareholders.

By Order,
THOMAS WINDER, Agent.

Woolpack Buildings, 3 and 5, Gracechurch Street, London, E.C., 24th May, 1894.

TO LET.

. Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

TO LET, DATTIN'S SLATE QUARRY, in the parish of Harberton, near Totnes, Devon, or a Sharebroker to form a Company for working Slate of the best quality, sizes large. A great advantage is now suggested to the working of Slate Quarries. A brick machine is to be had in every quarry for making bricks out of the chippings of slate, which will double the value of working the slate, and selling in addition to slate, and clearing off the heaps of rubbish on the land as the quarry is worked out.

For particulars apply personally or by letter to the owner, Miss CATHERINE HARDY, Harberton, near Totnes, Devon.

WANTED.

. Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

ASSAYER and METALL. CHEMIST, of large practical experience, will shortly be open for RE-ENGAGEMENT. Qualifications: Certificated Assayer, &c. (Freiberg); has been Assistant of both GOVERNMENT ANALYSTS of the TRANSVAALS. Is practical MILLMAN, and has lately been working the CYANIDE PROCESS in Johannesburg, and also reporting on various properties there. Speaks and writes perfectly Dutch and German, and would prefer position where use can be made of his experiences, such as Dutch East Indies.—Communications to "H. C. 04022," care of Mr. F. ALGAR, 11, Clement's Lane, London, E.C.

A COMPETENT METALLURGIST SEEKS EMPLOYMENT as Assistant Manager, Chemist or Assayer. Good references. Apply, "ZINGARI," MINING JOURNAL Office, 18, Finch Lane, London.

A MINING ENGINEER, proceeding to Nova Scotia in a few days, would be willing to UNDERTAKE ANY BUSINESS that may be entrusted to him.
Address, A. RICHARDS, 15, George Street, Mansion House, E.C.

MEXICO.

AN ENGLISH ENGINEER now engaged in Mexico is OPEN for FRESH ENGAGEMENT as MANAGER of gold or silver mines. Practical knowledge of Milling, Assaying, Surveying and Mining Work generally. Would examine, report, and advise on mines, prepare plans, also exploit new propertie &c., &c. London references.
Address, "MEXICO," care of A. W. WELLS, 1, Queen Victoria Street, London, E.C.

MANAGER'S ASSISTANT.

YOUNG ENGINEER, who has acted in the above capacity for 4½ years at Iron Ore Mines in South Spain, is OPEN for ENGAGEMENT. Knowledge of Spanish. First-class testimonials.
Address, JAS. HISLOP, 258, Kenmure Street, Pollokshields, Glasgow.

METALLURGIST.

WANTED, AN EXPERIENCED MAN who thoroughly understands the smelting and desilverising of auro-argent material. First-class men only need apply.
Apply, stating terms and testimonials (copies only), to "M 382," Messrs. DEACON'S, Leadenhall Street, E.C.

WANTED, COPPER ORE, MATTE, REGULUS, ALLOYS, or OLD METALS of any kind, also SILVER ORES, any quantity and regular supplies, PURCHASED for CASH. Send samples and full particulars. The correspondence of mine owners and others in any part of the world invited.
WILLIAM ELMORE, 13, Bond Street, Leeds.
Telegrams—"Copper," Leeds.

SALES BY AUCTION.

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TO INVESTORS, SPECULATORS, SHAREHOLDERS, AND OTHERS.

THE STOCK AND SHARE AUCTION COMPANY, of 45, Finsbury Pavement, London, E.C., HOLD SALES BY AUCTION, at the Mart, Tokenhouse Yard, E.C., on the 1st and 3rd Wednesday in each month, when a large number of STOCKS and SHARES in sound dividend-paying undertakings are submitted in lots to suit all buyers.

These sales are the recognised medium for disposing of all miscellaneous, unquoted, and music-hall shares, and are largely attended by speculators and investors. Commissions executed for country clients unable to attend the Mart personally, no charge being made to purchasers.

Our terms for including lots in these sales are a prepaid fee of £1 1s., to cover all expenses for advertising, &c., and a commission of 5 per cent. on amount realised. No charge beyond the £1 1s. if a sale is not effected.

The next Sale takes place on Wednesday, June 6th, 1894, at 12 o'clock noon precisely, and will include shares in the following and other well-known Companies, viz.:—Aerated Bread Company, Golden Grain Bread Company, Kensington Stores, Harrod's Stores, Veuve Monnier, H. Spicer and Sons, Manchester Ship Canal, Duval Restaurants for London, London Road Car Company, London Share and Debenture Company, Waterloo House and Swan and Edgar, Southern Counties Dairy Company, London, Gloucestershire, and North Hants Dairy Company, Palace Theatre, Gaiety Theatre, London Pavilion, Alhambra, Oxford, New Tivoli, Empire, Olympia, Moore and Burgess, Debentures, &c.

Particulars of lots to be included in the next Sale should be forwarded immediately. Descriptive catalogues may be obtained of the Auctioneers, &c., 45, Finsbury Pavement, London, E.C.

THE ENGINEERING REVIEW.

Edited by J. STEPHEN JEANS.

The want of a good periodical epitome of the Engineering literature of the day, which has long been felt, will be largely and effectively met by the "Engineering Review," the first number of which (new series) appeared July 20th. It is, therefore, likely to be appreciated by all who are engaged in or studying applied science, whether as engineers, chemists, manufacturers, merchants, managers, pupils, or students.

The new Journal aims at presenting a synopsis of the principal novelties in the Engineering appliances, inventions, applications, projects, and undertakings of the day, as collated from the various weekly, monthly, and other publications that represent this art and profession in its various forms. These abstracts are sufficiently full to convey an adequate idea of the scope and character of the subject matter dealt with.

The "Proceedings" of Engineering and kindred technical Societies, and the newest books relating to Engineering Science, are dealt with in the same manner, and original articles are contributed by authorities in different branches of Engineering.

With a view to securing propriety of selection and accuracy of statement, abstracts are generally either prepared by, or submitted to the approval of, recognised experts.

The "Engineering Review" contains more varied literary matter than any other Engineering Journal now published.

The unique character of the contents of the 'Engineering Review" has already secured for it a large and influential circulation. It is, therefore, an unusually good medium for the announcements of Engineers and Manufacturers.

Annual Subscription, 7s.; single copies, 6d.

Offices:—29, GREAT GEORGE STREET, LONDON.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of May 24 (4 o'clock) as follows:—We have had an inactive market this week, without much change of prices, and there is but very little doing to-day. Following are quotations:—Blue Hills, ¼ to ⅜; Carn Brea, 10 to 10⅛; Cook's Kitchen, ⅜ to ½; Dolcoath, 72⅛ to 73⅛; East Pool, 10⅜ to 10⅝; Killifreth, £3 6s. to £3 8s.; South Condurrow, ⅜ to ½; South Crofty, 2 to 2⅛; South Wheal Frances, 1 to 1⅛; Tincroft, 12⅜ to 12⅝; West Frances, 2 to 2⅛; West Kitty, 6⅛ to 6⅜; Wheal Agar, 2⅛ to 2⅜; Wheal Basset, 2⅞ to 3; Wheal Grenville, 17⅛ to 17⅜; Wheal Kitty (St. Agnes), ⅜ to ½; Polberro, 1⅛ to 1⅜.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (May 24) as follows:—The mining market is without any change to notice, with but few transactions. Prices much the same, and until some more permanent improvement takes place in the tin standard there will be no material advance in the price of shares. There is an enquiry for Wheal Kitty, on improvement in the lode at the 60 fathom level. The following are closing prices:—Blue Hills, 7s. 6d. to 8s. 6d.; Carn Brea, 10 to 10⅛; Cook's Kitchen, ¾ to 1; Devon Consols, 18s. 6d. to 20s.; Dolcoath, 72⅛ to 73; East Pool, 10⅛ to 10⅜; Killifreth, 3⅛ to 3⅜; South Crofty, 2 to 2⅛; South Frances, 1⅛ to 1⅛; Tincroft, 12⅛ to 12⅜; West Frances, 2⅛ to 2⅜; West Kitty, 6⅛ to 6⅜; Wheal Agar, 2⅛ to 2⅜; Wheal Basset, 3 to 3⅛; Wheal Grenville, 17 to 17⅛; Wheal Kitty, 8s. 6d. to 10s.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, May 24:—No particular alteration in the market this week, and on the whole business is very much restricted. Blue Hills, Wheal Kitty, and Polberro's enquired for at slightly higher rates. Quotations herewith (four o'clock):—Blue Hills, ⅛ to ⅜; Carn Brea, 10 to 10⅛; Cook's Kitchen, ⅛ to ⅜; Dolcoath, 72⅛ to 73⅛; East Pool, 10⅛ to 10⅜; Killifreth, 3⅛ to 3⅜; Phœnix, 1s. to 3s.; Polberro, 1⅛ to 1⅜; South Condurrow, ⅜ to ½; South Croftv, 1⅛ to 2⅛; South Frances, 1 to 1⅛; Tincroft, 12⅛ to 13; West Frances, 2 to 2⅛; West Kitty, 6⅛ to 6⅜; Wheal Agar, 2⅛ to 2⅜; Wheal Basset, 2⅞ to 3⅛; Wheal Grenville, 17⅛ to 17⅜; Wheal Kitty, ⅜ to ½. Tin, 71⅜.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, May 24, 1894 (noon):—Ignoring the (all but) blank of last week, we compare prices, for the purposes of this report, with those ruling a fortnight ago. Of course, as we said last week, changes in prices had occurred, but these were reflections of movements from other markets not given up to holidays, and consequently did not call for remark as for doings here. As against prices of a fortnight ago, then, some definite changes are to be found in several sections of the market. Possibly the most general and distinct changes have occurred in Americans, which throughout the whole of the period under notice have been dull, and at times flat, until yesterday, when a better tone, and some few recoveries in values, were made. The recovery was in but few cases very marked, however, compared with previous declines, and leaves the list all lower, Atchison Ordinary being to the fore with decline of $2, Union Pacific, $1⅛; Milwaukees, $1⅛; Louisville, $1 (after being much lower), and Denver Preference $1, besides a lot of others whose declines are expressed in greater or less fractions. In Canadians Pacifics are $⅛ to $⅜ down, and Trunk issues have had a very decided fall. Guaranteed are 5⅜, First Preference 2⅛, Second Preference 2⅛, Third Preference 1⅛, and Ordinary 1-16 to ⅛ down. Mexican rails have a contrary record, the changes herein being favourable to holders—viz., First Preference 2⅛, Second Preference 1, and Ordinary ⅛ higher. Home rails are somewhat irregular, and without very decided alterations on either side. With the exception of rise of 2⅜ in Brighton A, and a further rise of 1 in Great Northern A advances do not exceed ⅛ in any case. The only declines of any importance are as follows—viz, Great Eastern ¾, Lancashire and Yorkshire ¾, and North British New Ordinary ⅜. Beyond these the falls are few and very small in amount. Consols have improved 3-16 on the fortnight, which means about ⅛ on the last week's. Colonial Government bonds quiet. Rise of 1 in Cape of Good Hope Registered, and ⅛ in New Zealand Inscribed. These are all the changes to be noted in Colonials. Home Corporation stocks have a goodly list of better figures, without any declines to contradict them. Higher: Manchester 4 per Cent., 2; ditto, 3 per Cent., ⅛; Birmingham 3½ per Cent., ⅛: ditto, 3 per Cent., ⅛; Newcastle 3½ per Cent., ⅛; Liverpool 3½ per Cent., 1; and Douglas 3½ per Cent., ⅛. Foriegners present several changes worthy of notice, the chief of which are on the downward side. Higher: Mexican 6 per Cent., 1; Russian, 4 per Cent., 1; Turks (1854), ⅛; ditto, Group 4, ⅛. Lower: Argentine 6 per Cent., 4⅛; ditto, 5 per Cent., 4; Brazilian 4½ per Cent., 1⅛; ditto 4 per Cent., 1⅛; Italian Rentes, 1⅛; Uruguay 3½ per Cent., ⅜; Portuguese 3 per Cent., ⅜; Spanish 4 per Cent., ⅛; and Egyptian Unified, ⅛. In miscellaneous classes there has again been very little doing, and the transactions of the whole of the past fortnight do not approach the number usually recorded in the course of an ordinary week. What has been done has been principally straggling transactions spread over the whole time under notice, though the past two days have furnished more like a proportion to ordinary times, but this is quite comparative. As regards quotations changes are mostly downward, the exceptions to this rule being few and unimportant excepting for Allsopps, and to a less extent Suez Canals.

BANKS.—This is the only section where advances marked are not contradicted by any declines.—Higher: Manchester and County ¾, Manchester and Liverpool District ⅜, Bank of Liverpool ⅛, Imperial Ottoman ⅛, and Lancashire and Yorkshire ⅛.

INSURANCE.—Very few transactions.—Higher: Royal ⅛, Maritime 1-16, and Sea 1-16.—Lower: Commercial Union 1, Liverpool and London and Globe ⅜, Manchester Fire ⅛, and Reliance Marine 1-16

COAL, IRON, &c., quite neglected, save for some solitary markings in Ebbw Vales and Bolckow issues. Bolckows (£12 paid) are 1-16 to ⅛ better, but rest of changes are downwards—viz., Bolckows (£20 paid) ⅛, John Browns ⅜, Dorman Longs ⅛, Earle's 3, Ebbw Vales 1-16, and Parkgates 1.

COTTON SPINNING, &c., quite stagnant. If any business results, it is at very low prices, in some cases much below nominal quotations, but the transactions being so few, do not give actuality to the figures at which the small business takes place.

TELEGRAPHS AND TELEPHONES.—No dealings reported, save one or two in National Telephone Ordinary.—Higher: Western and Brazil Telegraph ⅛, and National Telephone Ordinary 1-16.—Lower: Anglo Telegraph Deferred ¼ to ⅛, Eastern ⅛, and ditto Preference ⅛.

MISCELLANEOUS.—Allsopps have again been the chief feature in this section, and herein fluctuations have been rapid and wide. On balance they have risen since our last detailed report 7 points. In the same time Guinness are down 3. Manchester Ship Canals, which a fortnight ago were just about on the top of a recovery, have dwindled slowly ever since, and now show Ordinary ⅛, and Preference ⅛ to 3-16 down. Rochdale Canal are again down (3 to 5). Suez Canal quote 1⅛ better. Gas Light and Coke are 2 better. Salt Unions have had a sharp fall and show ⅜ lower. South Africa Chartereds are credited with rise of 2s. 6d., and Seddons Tyres are 2s. better. Coats are ⅛ up, and Listers ordinary ⅛ down. Henry ordinary, too, are ⅛ to ¼ lower.

LATER (4.0 P.M.)—Better tone throughout rails to-day, but particularly in Americans and in some Canadian issues. Americans came better from New York this morning, and the improvement was continued on this side. Quite at the finish, however, New York Centrals were a bit pressed for sale, and this eased Yankees just a trifle from the best all round. Ship Canals have eased a little again to-day, but there has been no particular pressure, and they close steady at about 1-16 for the day on both issues.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (May 24), writes:—During the past week the market has been inactive, and prices are lower on realisations. The metal markets continue dull, but the recovery in trade appears to be maintained although at a slow rate of progress. The money market is easy.

In shares of coal, iron and steel companies prices are generally lower. Niddrie and Benhar have declined from 48s. 3d. to 38s. 9d. on the issue of their report. The profit last year (£23,492) is about £10,000 less than previous year, due to strikes and high wages. The dividend recommended is 4s. 3d. per share which compares with 6s. 3d. for the previous year. Bolckow Vaughan are at 10½, Ebbw Vale 9, Marbella 56s. 6d., Steel Company of Scotland 52s. 6d., Stewart and Clydesdale 8½, Transvaal Coal Trust 12s. 6d., and Wilson's and Clyde Coal 9.

In shares of copper concerns there has not been much business doing. Tharsis have been sold from 91s. 3d. to 92s., and Tinto from 14⅜ to 14⅝. There has been more business doing in Elmore descriptions. Foreign and Colonial Priority shares being quoted 25s. to 30s. and Elmore were 20s. to 25s.

In shares of gold and silver mines a fair amount of business has been done. Montana are lower at 5s. 3d. A considerable business has been done in African Gold Recovery up to 36s. 9d., and Cassel up to 21s. 3d., but both are now easier. The African Gold Recovery Company received advices stating decisions had been given in their favour by the Transvaal Court in two test cases for the recovery of royalties due under contracts. Ooregum lower on a tendency of the returns to fall off. West Australian Gold Fields offered. African Land are at 3s.; Broken Hill Proprietary, 53s. 3d.; Bonnie Dundee, 3s. 9d.; Champion Reef, 78s. 6d.; Consolidated Gold Fields of South Africa, 47s. 3d.; Day Dawn P.C., 3s. 9d.; Excelsior Estates, 3s. 6d.; Edwin Bray, 4s.; Gold Fields of Mysore, 24s. 3d.; Holcomb Valley, 1s. 3d.; Lisbon Berlyn, 3s. 3d.; May Consolidated, 10s.; New Virginia, 3s. 3d.; New Guston, 12s. 6d.; New Louis d'Or, 4s. 9d.; Oceana, 41s. 3d.; Ophir, 1s. 9d.; Orita, 2s. 9d.; St. Augustine's, 1s. 3d.; Sutherland Reef, 4s. 9d.; South Simmer and Jack, 30s.; Sheba, 28s. 6d.; South African Gold Trust, 17s.; South African Trust and Finance, 1s. 9d.; Silati, 3s. 6d.; True Blue Block, 2s.; and Tolima A, 7⅜.

In shares of miscellaneous companies there is not much alteration to notice. In oil companies Broxburn are at 8½, Linlithgow 19s., and Young's 20s. 6d. Nobel's Explosives are at 14. White Lead, 4s. 3d.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of May 23: Caledonian Railway ordinary deferred has fallen from 46 to 45⅜, although the traffic receipts for last week compare favourably with those of the corresponding week in last year. North British has declined from 41 13-16 to 40 15-16. Highland at 113 is ⅜ up. Debenture guaranteed and preference stocks have been in demand North British, Caledonian, and Glasgow and South-Western debenture stocks each show an advance varying from ⅜ to 1½. Bank stocks have also been in request. British Linen has risen from 384 to 385, Caledonian from 85s. to 86s. 3d., Commercial from 67½ to 67⅞, National from 332 to 338, Royal from 234 to 237. Union are 1s. 3d. down at 21⅜ In Insurance shares, Caledonian have fallen from 27 to 26. Life Association have risen from 38 to 39, Scottish Union B from 14½ to 15, Standard Life from 58⅜ to 59. In Mining shares Niddrie and Benhar Coal have, on the reduced dividend, fallen from 47s. 6d. to 38s. 9d. Steel Company of Scotland shares have fallen from 58s. 9d. to 53s. 3d. Young's Paraffin Oil shares have receded from 24s. to 20s. 3d.

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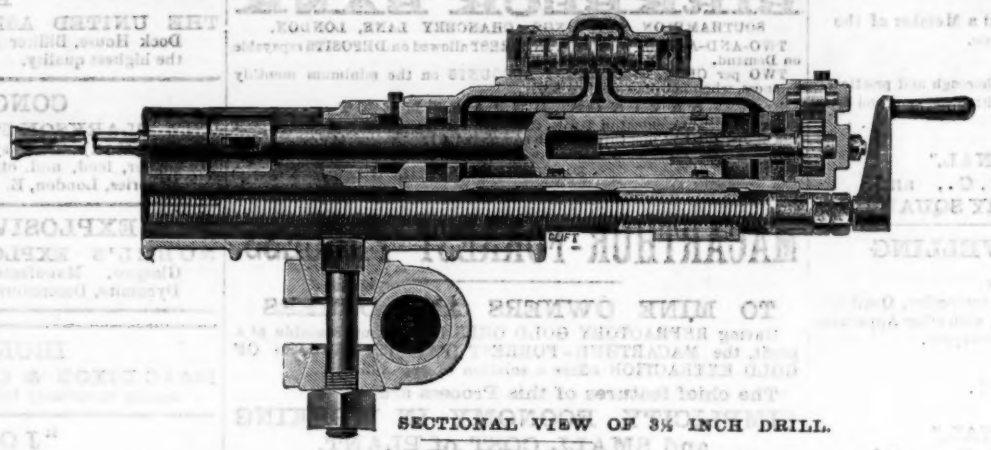

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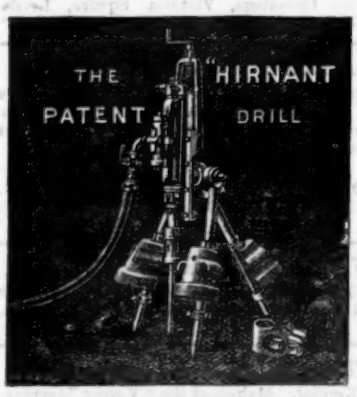

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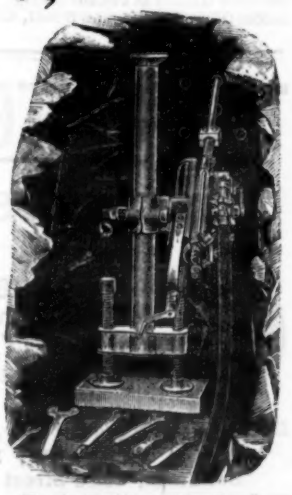

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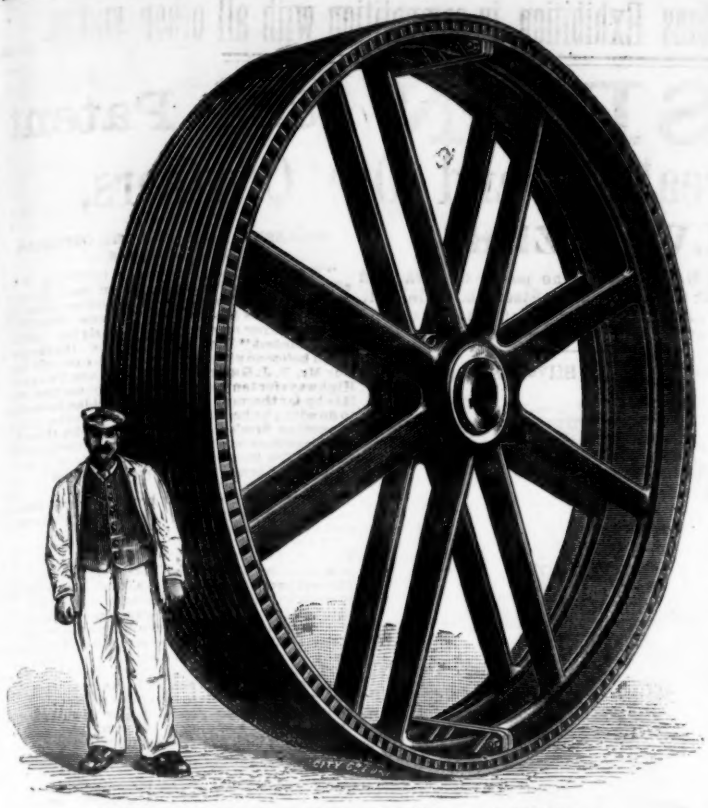

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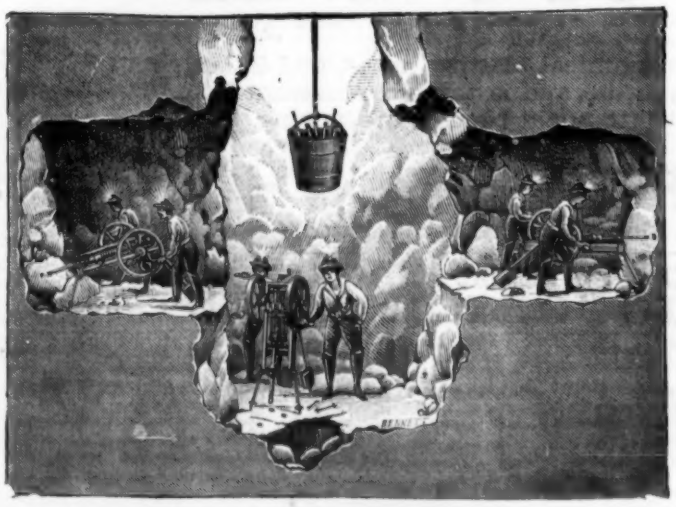

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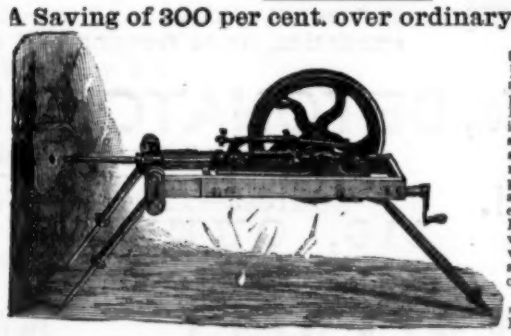

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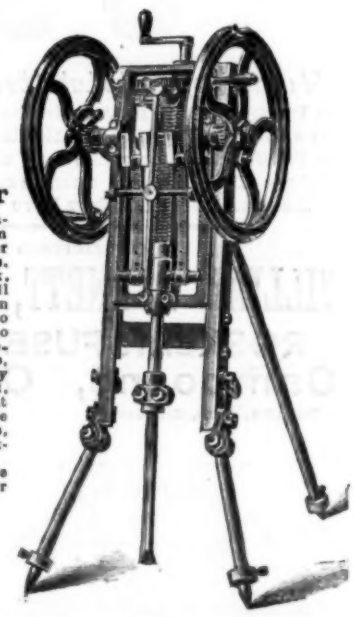

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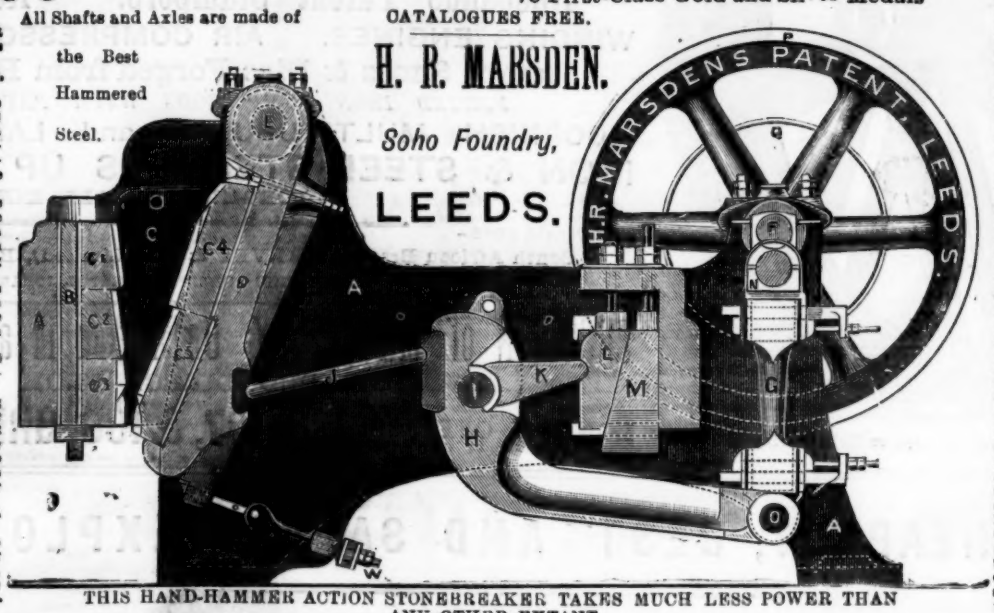

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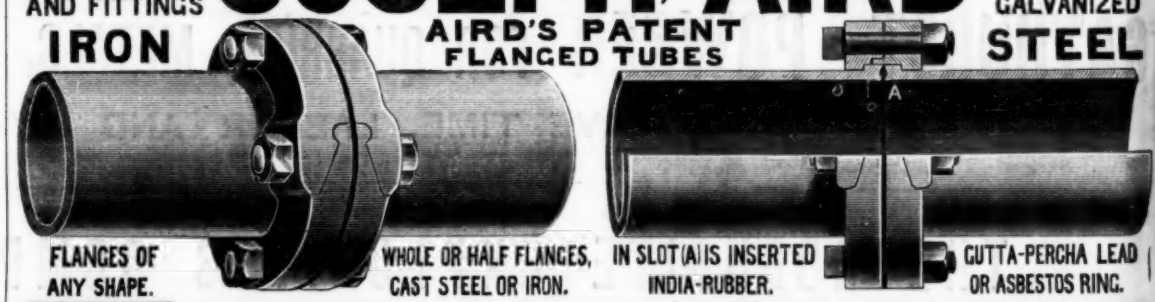

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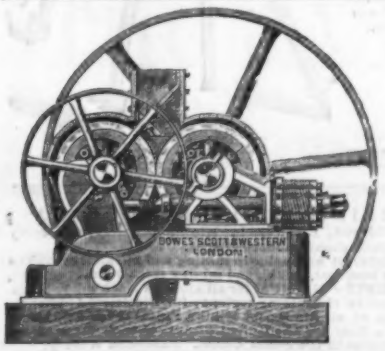

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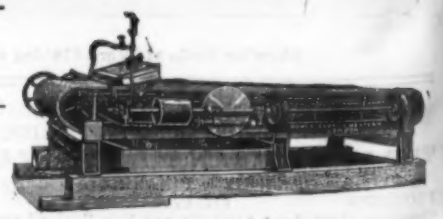

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